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# Inside Merrill Lynch's Billion Dollar Outsource Bet

BY TODD DATZ

**The Success of Their New Platform Rides On:**

- An all-star vendor lineup
- A general contractor in an unusual role
- An aggressive risk-sharing model
- User-satisfaction SLAs
- And—finally—a 1,500 page contract

**HOW TO LAUNCH LEADERS**  
And Improve Performance While Lifting Morale

Page 70

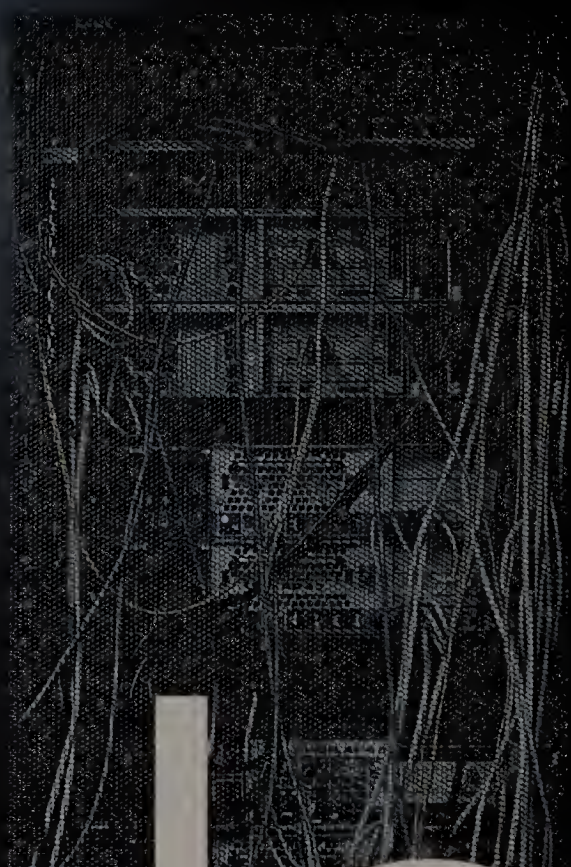
**BUSINESS INTELLIGENCE**  
Be Smart(er) About the New BI Software

Page 84



Merrill Lynch CIO John Cummings is pleased by SLAs driven by the users' experience of the service provided—not just by delivery times and metrics.





# Heil





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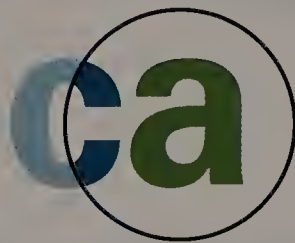
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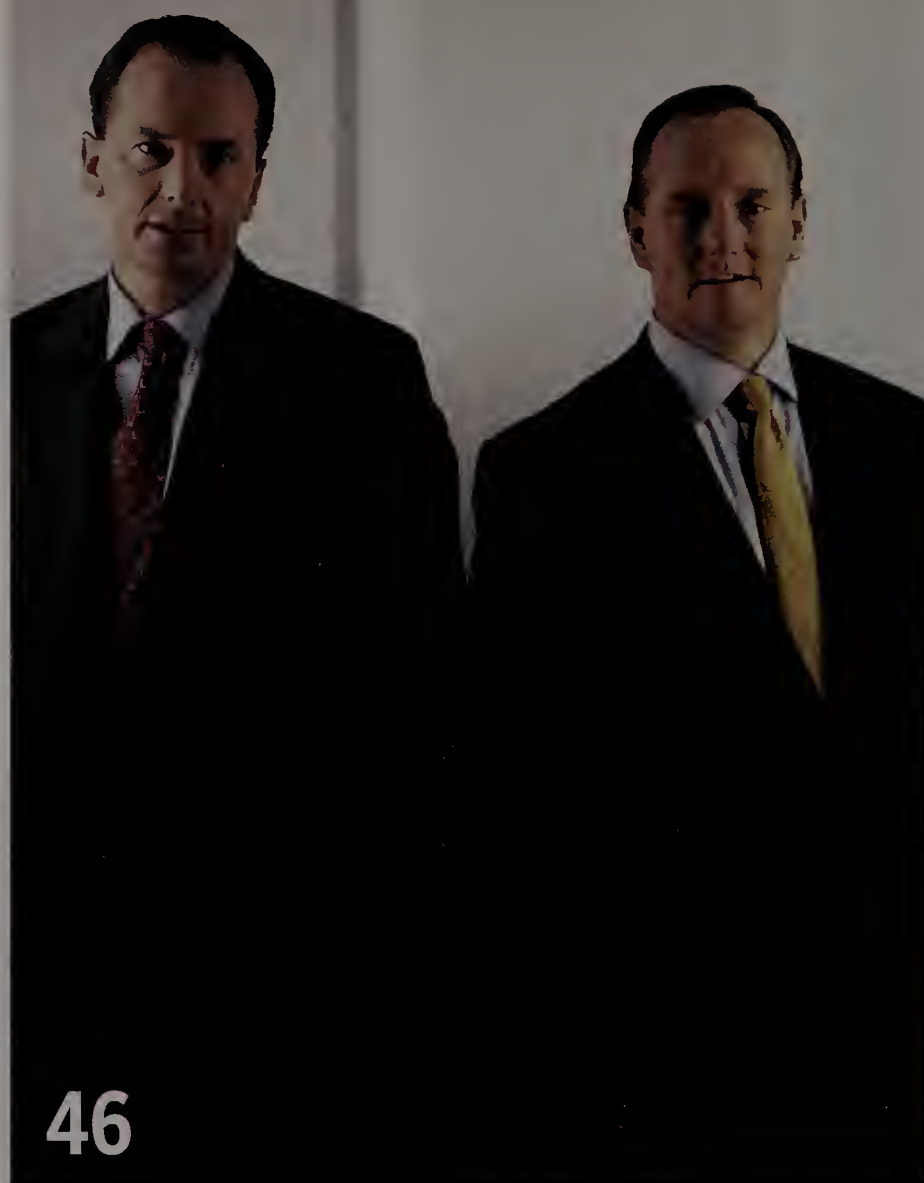
## Cover Story

I.T. OUTSOURCING | 46

# Merrill Lynch's Billion Dollar Bet

Next month, Merrill Lynch plans to roll out a new \$1 billion platform built by an all-star team of vendors and one general contractor with an unusual role. If successful, how Merrill managed it all may point the way to the future of IT outsourcing. *By Todd Datz*

COVER PHOTO BY DARRYL ESTRINE



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Merrill Lynch's James Gorman (left), executive VP of its Global Private Client Group, and CIO John Cummings view the company's massive outsourcing deal as a model for future IT projects.

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### EXCLUSIVE CIO STAFFING SURVEY What They're Saying About You | 60

IT staffers have a clear message for their bosses: CIOs better take a break from their budgets and their executive meetings and pay a lot more attention to staff morale. *By Lauren Gibbons Paul*



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Leadership training at ING U.S. Financial Services has given **Irene Heege**, head of worksite application services, the skills and confidence to talk comfortably about both technology and management.

### I.T. STAFF DEVELOPMENT How to Launch a Leader | 70

Instill leadership skills and business sense in your IT employees—and watch them soar. *By Todd Datz*

### BUSINESS INTELLIGENCE Business Intelligence Gets Smart(er) | 84

Companies are using business intelligence software for more than simple data mining. They're using it to identify hot sellers, cut costs and discover new business. *By Alice Dragoon*

### CIO PRIORITIES Birth of a Salesman | 95

It's not only about golf and cocktails any more. To successfully sell IT, CIOs must align projects with customer needs and then prove they delivered value. Better learn these eight essential sales techniques—your budget may be at stake. *By Lauren Gibbons Paul*

MORE ►►►



A black and white photograph of a person rock climbing a steep, textured cliff face. The climber is wearing a dark t-shirt, shorts, and a climbing harness, and is secured by a rope. The background shows a vast, open landscape under a clear sky.

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By Gary Beach

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By Patricia Wallington

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Recent evidence shows that multitasking is an enormous waste of your time and your company's money. By Megan Santosus

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When you want to reach for the stars—or at least that next level in your career.

By Gerry McNamara, Beverly Lieberman and Mark Polansky

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### E-Mail on the Cheap

Many companies are discovering that corporate e-mail systems don't have to be expensive to be effective. In a lot of cases, simple, stripped-down mail servers fit the bill quite nicely. But that doesn't mean you should rip out your existing e-mail servers tomorrow.

By Dylan Tweney



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Proposed rules add IT requirement to land, air shipments.

**PLUS:** New export rules ease IT work in India.

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Low-cost e-mail systems look attractive, but companies shouldn't rush to overhaul their e-mail infrastructures.

By Dylan Tweney

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When we don't know, this is who we ask.

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Abstracts of all the feature stories found in this issue.



**"Your objective is to get things done, even if it requires undoing a lot of previous effort. Letting go of preconceived notions is the first order of business."**

—Patricia Wallington, Leadership columnist, on changing strategy direction Page 38





## END-TO-END BUSINESS INTELLIGENCE. ONE BI VENDOR. IT NIRVANA.



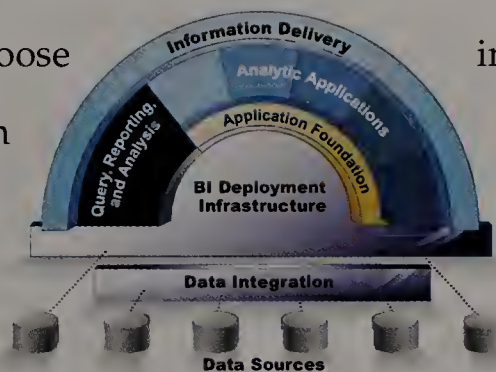
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## INTERACTIVE >features

from September 15 to September 30



CIO Irving Tyler

### ASK THE SOURCE

## Irving Tyler on Business Intelligence

When Irving Tyler took over the CIO reins at Quaker Chemical four years ago, he had to create a single global view from 14 transaction systems—see **Business Intelligence Gets Smart(er)**, Page 84. Yet, in three months Tyler

did just that: He scaled up to a global data warehouse, giving users access through an Internet-based business intelligence (BI) tool. Want to know the ins and outs of how he did it as well as the secrets of other BI applications? You can pick Tyler's brain about the process, or share your own ideas, through Sept. 30. Go to [www.cio.com/ask](http://www.cio.com/ask).

### ADD A COMMENT

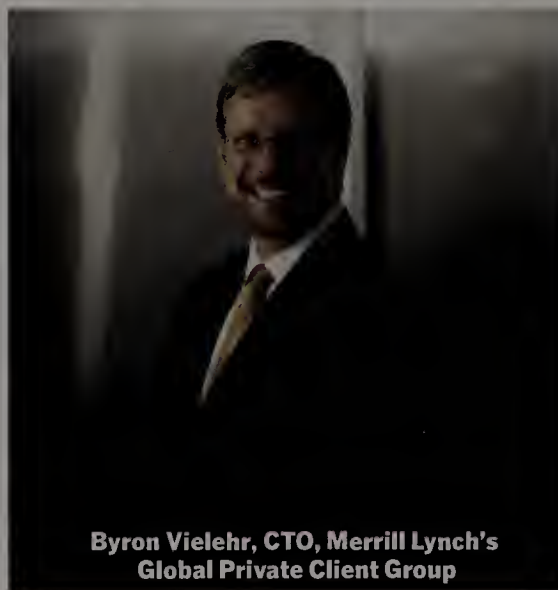
## Would Outsourcing Under a General Manager Work for You?

Last year, Merrill Lynch put together a contract that outsources much of the responsibility for an ambitious new platform to Thomson Financial, a large market data vendor with no previous experience managing an integration project of this size (see **Merrill Lynch's Billion Dollar Bet**, Page 46). Will it work? Would it work for you? Go to the ADD A COMMENT box at the end of the online version of the feature, and post your mind.

### LEARN MORE

## Extra Reviews for You

This issue's **Off the Shelf** (Page 26) has more reviews than we had room to print. Go online to read reviews of more new books, including *The Simplicity Survival Kit: 35 Ways to Do Less and Accomplish More* and *Fortune Favors the Bold: What We Must Do to Build a New and Lasting Global Prosperity*. Find the links at [www2.cio.com/books](http://www2.cio.com/books).



Byron Vielehr, CTO, Merrill Lynch's Global Private Client Group

### Our Daily Web

#### MONDAY Tech Tact

Technology Editor Christopher Lindquist covers what's coming.

#### TUESDAY Quick Poll

Vote with your mouse, and see how other IT leaders feel about current events.

#### WEDNESDAY Metrics

Web Writer Jon Surmacz makes sense of the numbers.

#### THURSDAY Sound Off

Web Editorial Director Art Jahnke opines on managerial, political and ethical dilemmas.

#### FRIDAY The Big Picture

Charts and graphs that are worth a thousand words.

#### EVERY WEEKDAY The News

We synthesize the top IT news stories of the day.

### More Resources Online

#### What They're Saying About You,

Page 60: The majority of your staffers think you're not spending enough time managing or developing leadership. Want more? To get all the gory details of CIO's survey "What Do You Think of Your CIO?" go to [www2.cio.com/research](http://www2.cio.com/research).

#### Don't Trust Your Code to

**Strangers**, Page 42: Michael Schrage touts extreme programming over outsourcing. For tips on evaluating application development methods, see the Robert Frances Group report in our Analyst Corner called "Metrics for Application Development." Go to [www.cio.com/analyst](http://www.cio.com/analyst).



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1 wireless vendor + 1 wireline vendor + 1 problem = multiple places to place blame. That's when problems can really multiply. And that's time for Sprint. Sprint built its wireline/wireless network from the ground up. Designed it specifically for greater reliability and security. We stand behind it. And our industry-leading SLAs back it up. Let us show you how end-to-end accountability works. Especially if you have a network that doesn't. ***It's time for Sprint. Go to [sprintbiz.com/time](http://sprintbiz.com/time), or call 1 866 629-5023.***



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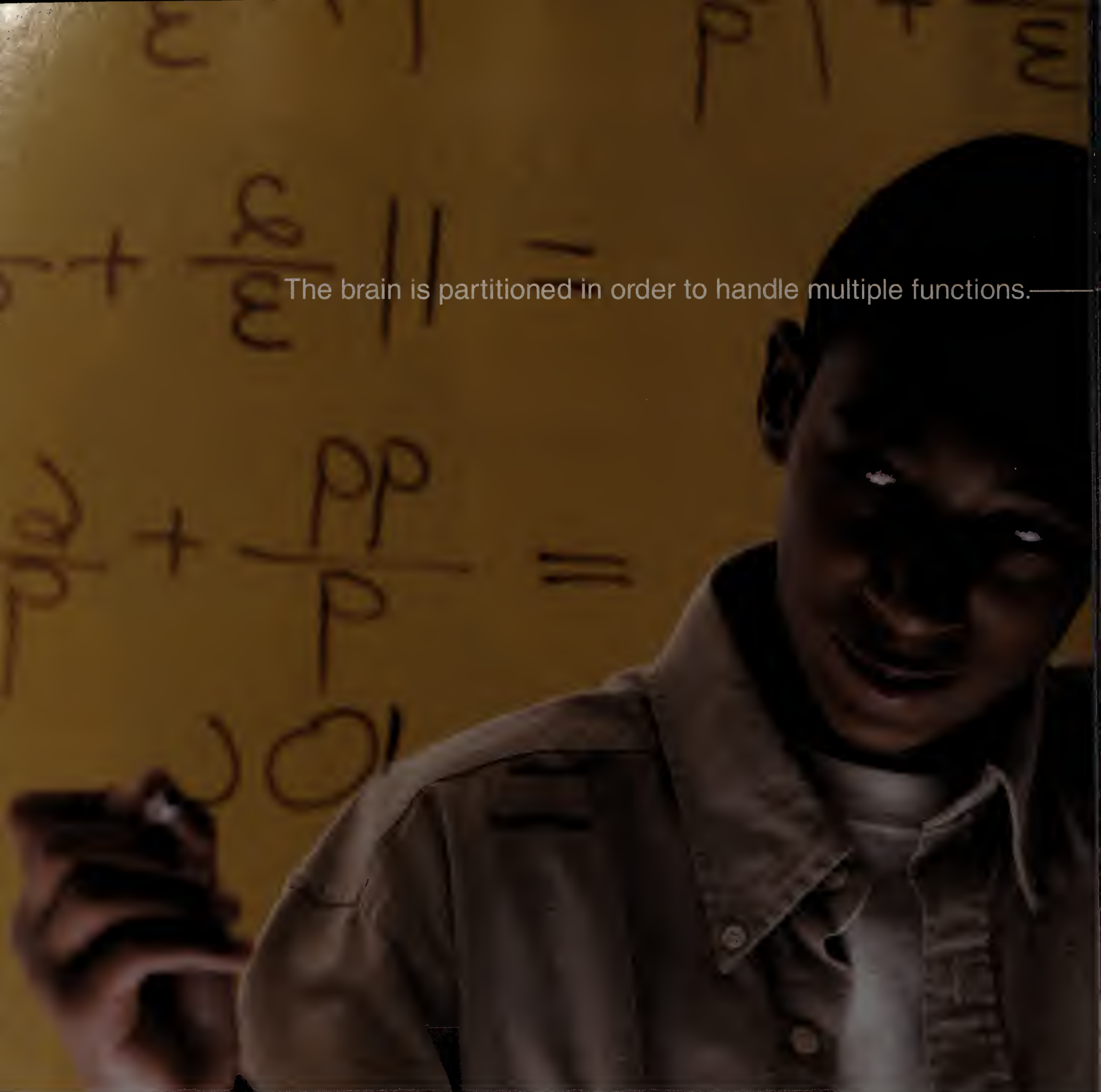
PCS Wireless

Internet Services

E-Business Solutions

Managed Services



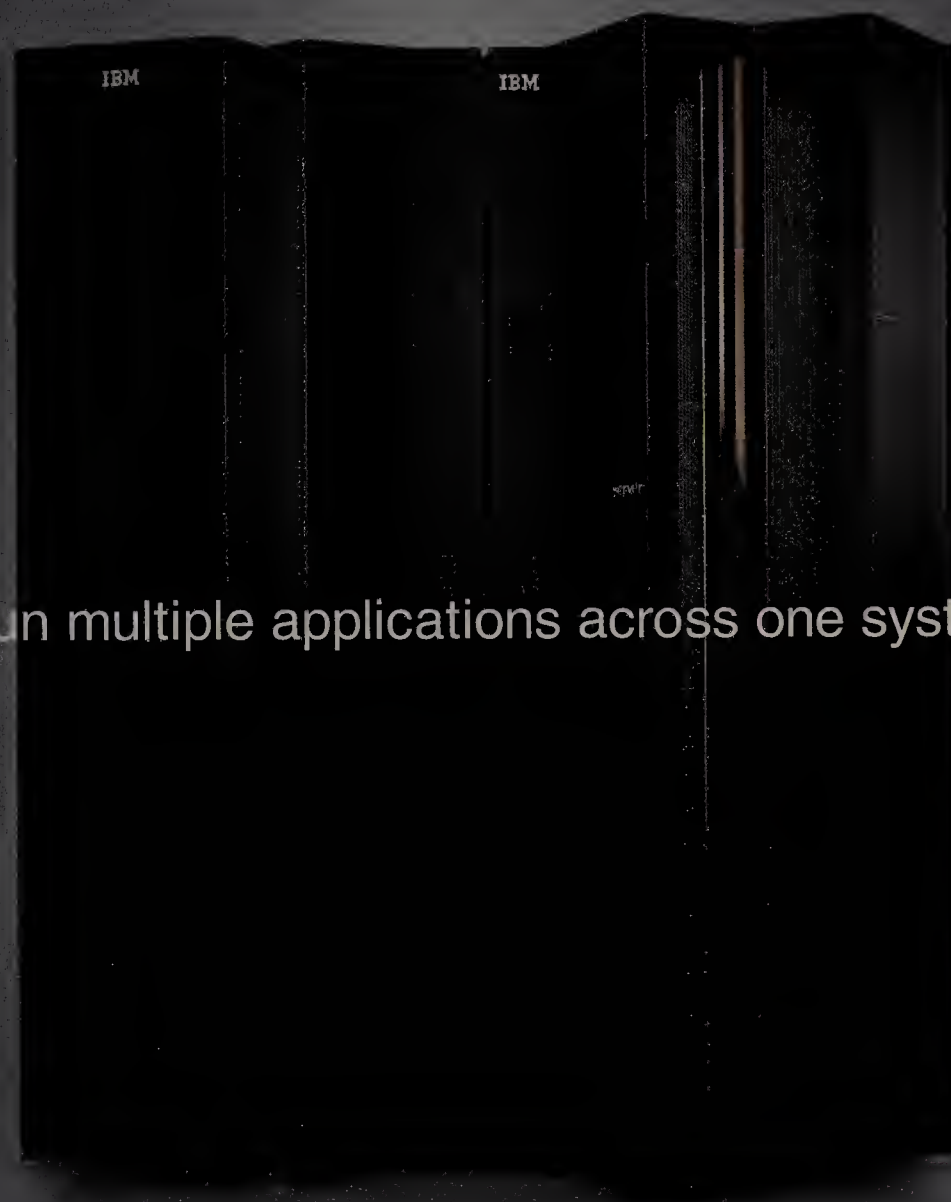


The brain is partitioned in order to handle multiple functions.

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# From the Editor



Whether developing the next generation of leaders or your own set of skills, find an array of resources at our Leadership and Management Research Center at [www.cio.com/leadership](http://www.cio.com/leadership).

## Leading Indicators

**DEVELOPED ANY LEADERS LATELY?** The need to groom more IT staffers into leaders—with a keen understanding of the business, an empathy for end users, and the ability to think, talk and act strategically—has been an acute CIO concern for years. Among the diverse peer-to-peer roundtables we offer at *CIO* conferences, the one focused on developing IT leaders is always oversubscribed.

With good reason. CIOs are apparently hapless at developing good leaders within the IT ranks. In a survey of 400 IT employees below the CIO level, a staggering 93 percent said their CIOs don't spend enough time on this important responsibility. (To find out more of what staffers had to say about their bosses, see "What They're Saying About You," Page 60.)

In "How to Launch a Leader," Page 70, we provide an overview of what CIOs can do to groom leaders. If you're thinking about skipping the story—and we know you've got other things to do besides coddle your employees (IT staffers made that painfully clear in the survey)—then just take the quiz at right.

### Leadership Development Quiz

- ❶ Who in your IT organization has successfully led or co-led a committee or team made up of business and IT people?
- ❷ Who gets invited to meetings to discuss business ventures that have little, if any, immediate connection to IT?
- ❸ Who regularly proffers ideas to make the business more profitable, efficient or competitive?
- ❹ In their reviews, who has stated at least one goal related to influencing and improving the enterprise and its business?
- ❺ Who has successfully presented to the executive committee or board of directors?
- ❻ Who would you not be concerned to have ride the elevator alone with the chairman of the board?
- ❼ If you were to go on a month's assignment to investigate a potential acquisition, who could run the ship while you're out?

### Scoring

- If you drew blanks, turn immediately to Page 70. Then, join our Best Practice Exchange for some peer counseling ([exchange.cio.com](http://exchange.cio.com)).
- If you came up with a few names, you still need to get busy. But at least you can tap those intrepid go-getters to help you develop others like them.
- If you came up with the same person for each answer, watch out. He might grab the first CIO job that becomes available—maybe yours.

Richard Pastore, Deputy Editor  
[pastore@cio.com](mailto:pastore@cio.com)



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**Q:** What are the most significant digital copier security issues?

**A:** Various copier print controllers are actually servers that queue and permanently store multiple document files, providing administrator access to the documents. At a minimum, most digital copiers retain the last document processed; some even retain multiple documents totaling hundreds of pages. Others redirect print jobs when the printer is busy or jammed, making "denial of service" attacks possible.

**Q:** How does Sharp protect the network interface?

**A:** The Sharp Ethernet card allows administrators to restrict access and disable unnecessary protocols. With this network card, the Sharp digital copier is essentially protected by its own firewall.

**Q:** How can you be sure that security products actually perform as claimed?

**A:** The Common Criteria program—administered by the U.S. National Security Agency and the National Institute of Standards and Technology—evaluates security solutions. Products that are validated under the program meet security levels consistent with ISO 15408 methodology.

**Q:** How can Sharp improve IT security?

**A:** Sharp offers print privacy solutions designed to restrict unauthorized personnel from seeing confidential materials. Copier access can be controlled and monitored, while documents retained in printer/copier/scanner/fax memory are immediately cleared to eliminate unauthorized access.

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## From the Publisher

gbeach@cio.com



# Microprocessors Matter

**CIOs WILL SOON BE ASKED** the \$64,000 question: Do they need or even want 64-bit computing on their corporate desktops?

Chip maker Advanced Micro Devices (AMD) is betting they do. The company launched Athlon 64, a microprocessor designed for corporate desktop computers. According to AMD, the Athlon 64 chips give CIOs the bilateral luxury of running 32-bit applications faster while self-determining their migration plans to 64-bit computing applications on the desktop. On the face of it, with curtailed IT spending, it's an enticing proposition; 64 bits on the desktop blows away the 4GB limit on addressable memory, enabling many new applications. And 64 bits offers more powerful encryption, a key security concern of many companies.

As with all microprocessor battles, the chip makers won't determine winners and losers. Those decisions are made by PC and software vendors. If a chip company makes the most incredible microprocessor in the world and no hardware vendor builds its machines around it, the chips are ascribed to the digital dustbin of computing history.

AMD is making progress on the hardware and software fronts. Several months ago, the company announced a server cousin to Athlon 64 called Opteron on a New York City stage. AMD touted IBM and Microsoft among others as supporters of the platform.

For AMD to succeed with Athlon 64, it must convince either Hewlett-Packard—already a partner of Intel in the development of its 64-bit server platform known as Itanium 2—or Dell—a company that rarely supports new, unproven platforms—to build Athlon 64 machines. AMD does have a relationship forged with HP for 32-bit machines.

I approached Bill Gates for a comment on AMD's 64-bit initiative. Microsoft's PR representative responded, stating, "What both AMD and Intel are doing is of great interest to the company." Not quite an endorsement, but not a panning either.

CIOs care about the microprocessor. On CIO.com we asked, "What is the prime consideration when purchasing computers?" With 50 percent of the vote, the microprocessor beat the OS (27 percent), memory (15 percent) and bandwidth (8 percent).

Intel is right. What's "inside" the box matters. If AMD delivers on its promise to bring 64-bit computing to the desktop, and major hardware and software vendors support it, the battle of the microprocessor companies will take center stage.

Gary J. Beach

PHOTO BY WEBB CHAPPELL

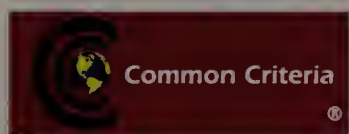


\*Trends in Proprietary Information Loss Survey (ASIS 2002). ©2003 Sharp Electronics Corporation.

## How secure is your digital information?

Protect your information with the Data Security Kit from Sharp. Financial facts, personnel records, customer lists: networked copiers/printers process sensitive information every day. Unfortunately, their hard drives can also be accessed via the network, contributing to \$60 billion worth of information theft every year.\* To protect this weak link in your

corporate security, we've created our Data Security Kit. It's the first copier and printer protection to be validated by Common Criteria, a government-sponsored program, and it's available only with our Digital IMAGER™ series of copiers/printers. Sharp's Data Security Kit. Enhanced information protection at your fingertips. [sharpusa.com/security](http://sharpusa.com/security)



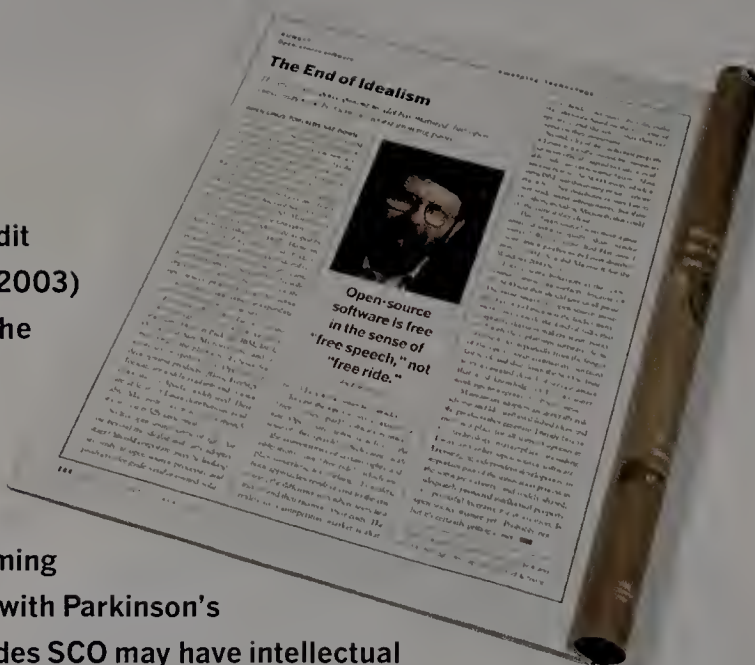
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# InBox

Reader Feedback

**Editor's note:** John S. Parkinson's Pundit column "The End of Idealism" (July 1, 2003) provoked concern and frustration in the Linux community. Dozens of readers responded to the column's claims that Linux's intellectual property heritage remains unclear and that the operating system faces stiff challenges in the coming years. Specifically, readers took issue with Parkinson's statements that other companies besides SCO may have intellectual property claims on Linux and that the quality of open-source software may not be any better than that of commercial code. Parkinson responds:



## OPEN SOURCE: PROMISING BUT STILL PROBLEMATIC

If you write commercial code for a company at work and then code for yourself at home, who owns the home output? Many employment contracts don't distinguish where or when creative work occurs; they simply lay claim to everything. If you then contribute the home code as open source, there may be a legal problem just waiting to happen. I don't think (and didn't imply) that this means open-source movement contributors are thieves or that every employer is set to bring suit. But the law and customary practices are immature, and there are risks with the approach that we have yet to resolve.

Many people wrote to tell me that the Linux development community would immediately fix any such ownership issues should they surface—and I believe them. But that's not the point. Widely deployed software needs to be free of such uncertainties because the costs associated with fixing problems eat away at the total cost of ownership benefit on which the success of open source at least in part depends.

Second, I think that the open-source development process is truly exciting as

a way to improve the quality—not just the cost—of software. But this doesn't mean open-source software is bug-free. Some respondents have argued that Red Hat could not possibly have issued more fixes than did Microsoft for its Windows 2000 Server, but when comparing the list of security advisories sent to me by both vendors, Red Hat had a larger total. At one time, this could have happened because the open-source companies were more likely to send out such advisories, but I don't believe that's the case today.

—John S. Parkinson is a senior vice president and chief technologist for Cap Gemini Ernst & Young.

## REVERSE AUCTIONS RARELY DELIVER AS ADVERTISED

I enjoyed your column [Net Gains, "Forward Thinking About Reverse Auctions," June 1, 2003] examining the efficacy of e-auctions. Bidders should beware. E-auctions are not always in their best interest. For example, these auctions can be riddled with hidden costs (the "options" companies must buy in order to fully operate the equipment) or used to sell nonstandard, stripped-down configura-

tions not normally sold commercially. Even more alarming is the practice of using e-auctions to offer end-of-life stage products that leave the bidder paying a higher price for the substitute product.

Andy Sirkus, Xerox  
andy.sirkus@usa.xerox.com

## BUT I.T. DOES MATTER

I just read Michael Schrage's rebuttal ["Why IT Really Does Matter," Aug. 1, 2003] to Nicholas Carr's *Harvard Business Review* article "IT Doesn't Matter." I think you are right on, especially with the other items that should also be considered commodities, like capital and talent.

My personal take is that there are definitely elements of IT that are commodities, such as computer operations or network management. These are the items where each year's goal for them is one of improved productivity, hardly in the strategic element of the organization. To me, the strategic use of IT is found in the application of IT to the touch points with the customers and clients of the enterprise. Using IT to drive the top line is strategic, in my opinion. Wherever IT can increase the market cap of the enterprise, I believe you'll find the counter to Mr. Carr.

Bart Bolton, Lifetime Learning  
bartbolton@aol.com

## WHAT DO YOU THINK?

Send your thoughts and feedback to [letters@cio.com](mailto:letters@cio.com). Letters may be edited for length or clarity. For links to all articles mentioned, go to [www.cio.com/printlinks](http://www.cio.com/printlinks).

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Robert H. Dorin

Robert Dorin, a member of Aberdeen's server team, focuses on server solutions for high-end enterprise applications. Dorin joined Aberdeen in 1996 and has since followed Unix and Windows servers and platforms and ERP systems. Dorin has an ScB in Applied Mathematics from Brown University, an MS in Computer Science from the State University of New York at Buffalo, and an MBA from Northeastern University.

# UNISYS PRESENTS **ask THE EXPERT**

*A few minutes with Robert Dorin,  
Vice President, Research  
Enterprise Server Solutions  
Aberdeen Group*

## Changing the Economic Equation

### > Do you think "Business Intelligence" for the entire enterprise is reality, and why?

The concept of BI for the enterprise is reality for some enterprises, but not for many. Many organizations still analyze business data behind closed doors and pass the directives down to business managers who understand neither the framework of the data that's been examined nor the context for the decisions that are being made. Technology is available to deliver BI for the enterprise, but each organization must decide how to implement access to data across different business units and departments.

**"The ability to react and respond quickly to buying patterns and other external events is critical to gaining advantage."**

### > What advances are being made within organizations to forward decision-making at all levels of the organization?

This relates back to the first question. When different departments within an organization are able to work from a common data analysis framework—for example, how revenues, profitability, and other key performance indicators (KPIs) are being measured—the potential for accurate and consistent decision-making is much greater. BI products provide the technology to deliver such a common framework.

### > Can "Business Intelligence for the Masses" create a strategic competitive advantage for an organization against its competition?

Absolutely. The ability to react and respond quickly to buying patterns and other external events is critical to gaining advantage. Complex data analytics capabilities are valuable, but the ability to share the data and the result of

the analysis not only within an organization but also between partners—for example, a retail outlet and its suppliers—is extremely powerful.

### > What has changed from the traditional Data Warehousing efforts of the 90s to the Business Intelligence projects that are being implemented today? (users, cost, application, process)

Obviously, PCs and Web browser access are more ubiquitous today than they were even 10 years ago. Data sharing enhances the level of cooperation among departments and among business partners. While BI software ranges from high-end (i.e., expensive) analytics to less sophisticated (Excel-driven) tools, the infrastructure to deliver BI to many more users in the enterprise is inexpensive and, in most cases, already in place.

### > In today's economy, which businesses or business practices have the most to gain from Business Intelligence?

Those businesses that are able to make changes in their product marketing quickly and frequently can benefit a great deal from BI. Retail businesses such as consumer packaged goods manufacturers are constantly making pricing, packaging, and placement decisions. Banking and financial services similarly function in a dynamic and volatile environment. With many businesses accessible to their customers online, data can be gathered almost instantaneously after implementing a change. BI plays a critical and fundamental role to online services, such as eBay, amazon.com and the travel sites.

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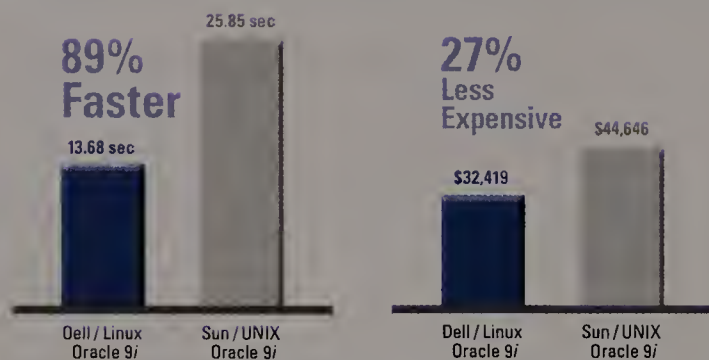
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Based on IDC Quarterly Server Tracker, June 2003. <sup>2</sup>Tests by Dell in January 2003 on baseball database. Dell configuration: Dell PowerEdge 6650 server with four 2.0 GHz Xeon MP processors, Red Hat Linux Advanced Server 2.1, 3 Year Gold Support. Price: \$32,419 ([www.dell.com](http://www.dell.com), 7/1/03). Sun configuration: Sun Fire V480 server with four 900 MHz UltraSPARC III processors, Solaris 9 (12/02 version), 3 Year Gold Support. Price: \$44,646 ([www.sun.com](http://www.sun.com), 7/1/03). For details and results, see: [www.dell.com/migration](http://www.dell.com/migration).

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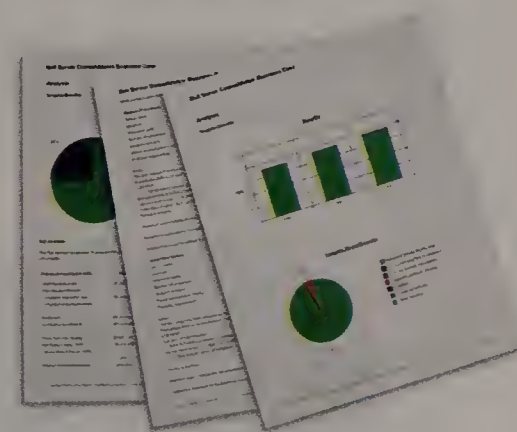
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# trendlines

the **NEW** the **HOT** the **UNEXPECTED**

Edited by Michael Goldberg

## INSTANT MESSAGING

### Auditing the Chat Line

**YOU'VE GOT INSTANT MESSAGING**, a.k.a. IM. And the accountants and government regulators may want to take a look at it someday. Especially if you are in the financial services industry, those instant chat missives are subject to the same kinds of document retention rules that govern paper documents and e-mail messages.

In July, the National Association of Security Dealers, or NASD, which regulates dealers who trade on the Nasdaq stock market, issued a notice urging member companies to supervise how they use IM technologies and make their use consistent with e-mail policies. The "lack of formality of instant messaging does not exempt it from the general standards applicable to all forms of communication with the public," the NASD notes.

Unfortunately, most corporate IM activity relies on consumer-grade products from AOL, MSN and Yahoo—70 percent according to Osterman Research. While such products combine the multitasking of e-mail with the immediacy of a phone call, they lack the tracking and data retention features that the government sometimes requires.

However, that's simply not acceptable, says Charles Landes, director of the audit and attest standards team at the American Institute of Certified Public Accountants. He says that the SEC has determined criteria for records that must be retained, which can include any electronic records that contain conclusions, opinions, analyses or financial data related to an audit. "If an instant message meets the criteria of the SEC rule, it will have

*Continued on Page 28*



## WIRELESS

### Burgers and Wi-Fries

**BRING YOUR LAPTOP** and don't forget some wet naps. Fast-food giant McDonald's is hoping businesspeople on the go stop by for lunch and—greasy fingers and all—check their e-mail using a wireless Internet connection in between bites of Big Macs.

The Golden Arches has started offering the Wi-Fi service in 75 New York City restaurants, 75 in the San Francisco Bay area, more than 100 in Chicago and two near Toronto. All customers need are a Wi-Fi-enabled laptop or PDA using the 802.11b standard. The service also uses 128-bit SSL encryption so that patrons can safely browse websites and read their e-mail from inside the building or out in the parking lot (up to 300 feet outside the door). Each region will charge different prices depending on the network service providers in use. In California (Wayport), it's \$4.95 for two hours, while New York City (Cometa) users will pay \$2.95 per hour, and Chicago (Toshiba) users will pay \$4.95 per hour.

As more Americans seek healthful food options, the \$15 billion company is smart to look at new ways to bring people into its eateries, says San Bhavani, mobile computing analyst at consultancy ARS. But it could run into trouble. "If it's not working and I stand at the counter and have to ask a 15-year-old kid for help who has his first job ever, there's a very strong chance that person doesn't know the first thing about Wi-Fi," Bhavani says. McDonald's says toll-free support is a phone call away.

McDonald's will evaluate this trial wireless offering next year. Like many special offers, this one has another brand attached: Intel is helping to market the service as a promotion. Would you like Centrino chips with that?

—Sarah Johnson





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## WEB SERVICES

# GM Pushes Web Services to the (Shop) Floor

IN THE BUZZALICIOUS WORLD of Web services, software-as-services remake the way businesses function, automatically improving performance—and profits. In reality, Web services offers mostly promise. But that's changing, as big companies start to deploy these services in production environments. General Motors is one company that's test-driven Web services and is moving the technology to the open road.

IT executives at the world's biggest carmaker think Web services can play a

Scott says the ability to manage code and the potential for reusing the code should both improve performance and lower GM's costs. "Once I've developed a service for inventory monitoring or a quality application, I can reuse that Web service over and over and over again," Scott says. In addition, he thinks Web services components will crop up in almost every part of GM's operations, though the manufacturing wrapper is currently the most defined service.



Web services gives GM a consistent way to view performance at different manufacturing plants. —TONY SCOTT, CTO OF GM

number of roles for the company, and they are using technology from multiple vendors in several areas of its operations.

The biggest aim is to get information more easily about factory performance, says Tony Scott, GM's CTO. The company has some 30 plants worldwide and retools them on average every seven or eight years. That means plant IT ranges from state-of-the-art to Pleistocene. If the company wants to compare, say, defect ratios for cars made at various plants, it has to have specific applications written for each generation of plant, then pull them together, a costly process.

GM's efforts are not unusual, but they do represent a forward-thinking industry. Automakers long have been aggressive adopters of standards-based communications technology, from EDI to Corba to XML, says Ronald Schmelzer, an analyst at Zapthink. Web services is no exception.

At GM, Scott says, Web services gives the company the ability to put a "wrapper" around all of its manufacturing applications—this enables links to disparate technology environments and gives a consistent way to view the applications' performance. That view should help GM manage its performance more consistently.

GM has spent about 18 months developing and testing Web services, according to Scott. Technology from different vendors has been easy to integrate, a pleasant surprise that has helped GM roll out Web services faster than it expected. Scott would not comment on the vendors involved in the Web services project. EDS, Hewlett-Packard and IBM Global Services are three outsourcers doing the work, part of GM's famous reliance on outsourcers.

For all that, Scott says businesses need to keep Web services in perspective. GM's Web services project thus far does not stray beyond its own corporate walls to outside partners—yet. And standards are still forming in the manufacturing environment. While Scott talks about the Web services project that relates to auto plants—where many of the transactions covered by this project are asynchronous—he says the technology does not work well in real-time environments. At GM, which uses multiple outsourcers to develop its Web services, the company may not be able to reuse some types of code. "It's not a panacea," says Scott. "But we're finding some practical uses in a couple of really important areas."

—Michael Fitzgerald

## Chat Recordings

Continued from Page 26

to be retained," he insists.

Michael Osterman, president of Osterman Research, says CIOs typically replace consumer-style IM with corporate-grade IM products that provide security and management features, including record retention. There's also a middle ground for companies whose end users have grown accustomed to consumer IM software: installing add-on IM applications from companies such as Communicator, Endeavors Technology or FaceTime Communications.

Either approach allows IT managers to implement security measures, such as detecting IM usage, gathering statistics, documenting network usage and mapping "buddy name" aliases back to the corporate directory, as well as keeping an auditable record of IM transactions. That could be useful information for the auditors.

Regardless, IM is on its way to ubiquity. An estimated 84 percent of corporations had some users with IM in 2002, and Osterman forecasts that IM will penetrate 99 percent of enterprises by 2007.

—Geoffrey James

## A Gap Between User and Vendor Views

**36%** of vendors think reducing capital costs is the most important factor to users

— however, only —

**14%** of users say reducing capital costs is the most important factor in deciding to buy utility computing services

SOURCE: Saugatuck Technology survey of 91 business executives and IT directors at user and vendor companies, July 2003



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# Off the Shelf

Edited by Carol Zarrow

## New This Season

**OFF THE SHELF** this month offers an advance look at some of the books being published this fall by well-regarded and familiar authors. An expanded version of this column, with additional titles, appears online at the Reading Room ([www2.cio.com/books](http://www2.cio.com/books)).

SEPTEMBER

### Beyond Fear: Thinking Sensibly About Security in an Uncertain World

By Bruce Schneier  
Copernicus Books, \$25

Most recent book:  
*Secrets and Lies: Digital Security in a Networked World* (2000)



A.D. 828—and they're always engaging.

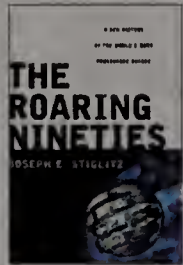
Schneier takes a decidedly iconoclastic view of security, especially security post-9/11. The former cryptographer has moved ever further away from his information security roots and now views security holistically. Not a line of code to be found here, but security anecdotes abound—including how the body of St. Mark was pilfered from Alexandria, Egypt, in

OCTOBER

### The Roaring Nineties: A New History of the World's Most Prosperous Decade

By Joseph E. Stiglitz  
W.W. Norton, \$24.95

Most recent book:  
*Globalization and Its Discontents* (2002)



hangover, and blames them both on the weakening of the checks and balances between government and marketplace.

Neither the boom of the 1990s nor the bust of the past three years would have happened if the U.S. government had not begun deferring to Wall Street—and the Fed—instead of treating the financial sector as just another special interest group. So says Nobel Prize economist Stiglitz, who analyzes both the new economy spree and its evil twin, the current

NOVEMBER

### The First 90 Days: Critical Success Strategies for New Leaders at All Levels

By Michael Watkins  
Harvard Business School Press, \$24.95

Most recent book:  
*Breakthrough Business Negotiation: A Toolbox for Managers* (2002)



Here's a cruel little factoid for the newly promoted: Ninety days is all the time you have to prove you are actually worth the trouble. Miss that deadline and you're toast. Watkins, however, says 90 days is plenty—no problem!—and shows you how to pull it off even sooner, with his plan for “transition acceleration.”

## CIO Best-Seller List

**5** Why Pride Matters More Than Money: The Power of the World's Greatest Motivational Force  
By Jon R. Katzenbach  
Crown Publishing Group, 2003

**4** Primal Leadership: Realizing the Power of Emotional Intelligence  
By Daniel Goleman, Richard Boyatzis and Annie McKee  
Harvard Business School Press, 2002

**3** The Five Dysfunctions of a Team: A Leadership Fable  
By Patrick Lencioni  
Jossey-Bass, 2002

**2** Execution: The Discipline of Getting Things Done  
By Larry Bossidy and Ram Charan  
Crown Publishing Group, 2002

**1** Good to Great: Why Some Companies Make the Leap... and Others Don't  
By Jim Collins  
HarperCollins Publishers, 2001

SOURCE: Data from July 2003, compiled by Powell's Books, Portland, Ore.

## If You're Looking for Answers, Here Are the Questions

### Business-Driven Information Technology: Answers to 100 Critical Questions for Every Manager

David R. Laube and  
Raymond F. Zammuto, Editors  
Stanford University Press, 2003,  
\$34.95

What do corporate executives need to know about enterprise IT? That question is answered in *Business-Driven Information Technology*, but Socrates-like, by means of even more questions—100, to be exact.

Gathered into subject areas, the questions range from the broad (“What are the major privacy issues associated with e-business?”) to the specific (“How can the capability maturity model be used to improve

an IT organization's effectiveness?”).

*Business-Driven Information Technology* is the brainchild of the Business School of the University of Colorado at Denver. In the coming months, a series of the book's questions and answers will be posted at CIO's online sister publication, Darwinmag.com. Look for the “100 Questions” link on the Darwinmag homepage at [www.darwinmag.com](http://www.darwinmag.com).



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# I LIVE

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"At last I'm free, thanks to Nokia Mobile Connectivity solutions...and it feels great," exclaims Mary Langer, office manager.

"I thought I was imprisoned at my desk forever with no hope of any release — but at last I'm free. Now I can visit more suppliers, get better prices and work whenever and however I want. Am I happy or am I happy...," Mary enthused after her first taste of freedom. Workers everywhere, from CEOs to Account Managers are rejoicing.

**Secure, Reliable, Freedom and Flexibility** today at the thought of a breakthrough in the working lives. "Mobile Connectivity from Nokia means I can make better use of my waiting time at the airport," said CEO, Don Baker, "which gives me more family time when I get home. Even sales manager, John Patten, was delighted as he realized his field sales team was able to visit even more customers, now that they are able to securely access company data...

### Introducing a new era of secure, corporate business freedom and flexibility — Nokia Mobile Connectivity solutions.

Employees throughout an enterprise want to be more mobile and productive — and this can be realized thanks to Nokia Mobile Connectivity solutions. CIOs and IT managers can provide the mobility and security of anytime, anywhere access to users — while empowering everyone from the CEO to field salesforce teams with the information needed to do their work where and when they choose. Nokia Mobile Connectivity solutions include a range of IPSec- and SSL-based client and gateway products that provide



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**So if you want greater working freedom that's IT approved, go ahead and escape. Visit [www.nokia.com/mobileaccess/americas](http://www.nokia.com/mobileaccess/americas)**

# NOKIA

CONNECTING PEOPLE

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MEDIA

## Football, 24/7

ON NOV. 4, football addicts around the country will be doing their own living-room versions of the Ickey Shuffle as the new NFL Network rolls out to TV screens across the country. It will run pigskin programming 24/7, including a live one-hour show every weeknight called *Total Access* from a new studio in Los Angeles.

On camera will be host Rich Eisen, a former *SportsCenter* mainstay. Behind the scenes, CIO Dave Franza is responsible for linking the Los Angeles studio with NFL Films headquarters in Mt. Laurel, N.J.

In the past six months or so, Franza and his staff (17, including 12 full-timers) have been immersed in planning the integration of Mt. Laurel and the *Total Access* studio.

Because the network will use NFL Films for much of its programming, one of the key tech-

nologies behind Franza's efforts is the Saber (server archive-based editing and research) system, the homegrown video archiving and editing application that NFL Films has had in place since 1996.

NFL Films has a library of video with literally every play of every game, indexed back to 1992. It's that footage—the leaping catches, bone-crushing hits, freezing fans—that's shown on local and national stations, appears in commercials and is used by teams to scout each other. Franza is proud of Saber, a system with 7 terabytes' worth of archival video he says no other company has. "It's been a shining light for IT here the last few years," he says.

It all begins with the games, which are shot in 16 mm film, then digitized into .mpeg video. Footage is then logged in by a team of 10 people, who have



Warren Sapp (99) celebrates with Tampa Bay teammate Cornell Green after the Buccaneers beat Oakland to win Super Bowl XXXVII last January. Sapp is sure to get highlight time on the new NFL Network.

152 ways to categorize the shot (for example, great pass, sweat dripping from face). The video is then edited and made available to some 275 employees at their desktops. With the launch of the NFL Network, "an incredible amount of content needs to be viewed, researched and edited," says Franza.

He says that NFL Films will produce three to four times the

content it would normally to provide enough material for the new network. The high-resolution broadcast video will be sent to Los Angeles via a leased fibre channel. Just in time for gridiron-giddy subscribers to DirecTV (and cable networks to be announced) to watch Warren Sapp turn Donovan McNabb into a human pretzel.

—Todd Datz

OPEN-SOURCE DEBATE

## A Kinder, Gentler Fight

TALK ON THE CAMPAIGN TRAIL can get pretty rough, especially when the debate pits open source against Microsoft software. But now, Microsoft says, the gloves are back on, though the company has pledged to take the invective out of its talking points about Linux and open-source software.

Instead, Microsoft representatives plan to debate the relative merits of Windows and open-source software such as Linux using facts instead of emotionally charged statements. That's according to Martin Taylor, Microsoft's general manager of platform strategy who was appointed in July. It's Taylor's job to direct Microsoft's thinking about open-source products. "It is not a religious discussion; it is a business model discussion," Taylor says. "We kind of defaulted [to emotion in the past] because we could not think about Linux in the right way."



Microsoft CEO Steve Ballmer, who two years ago likened Linux to a cancer, demonstrated the new fact-based tactic in July at Microsoft's annual financial analyst meeting. Using numbers from various research companies, Ballmer argued Windows costs less, runs faster and is more secure than Linux. Ballmer's remarks came just weeks after executives urged Microsoft's sales force to avoid emotion and stick to facts when discussing Linux and open source.

Al Gillen, an analyst at IDC, called Microsoft's change in tactics constructive. But open-source advocates were unimpressed. "A lot of people they talked to were interpreting 'Linux as a cancer' as self-serving," says Open Source Initiative President Eric Raymond. "The only thing it was doing was making Linux look good."

—Joris Evers and Robert McMillan



# What Every IT Leader Needs to Know

A Guide to Getting the Most out of Microsoft's Software Assurance for Volume Licensing

## IT'S EASY TO SEE THE VALUE OF SOFTWARE.

After all, we're talking about technology that runs the global economy and increases worker productivity in ways unimaginable even three years ago.

Yet when it comes to software licensing, CIOs have struggled for years to articulate the value of their agreements in terms that their business peers can embrace. This struggle has only intensified in recent years, in response to boardroom-level pressure to drive down costs. Software licenses and support are prime cost-reduction targets, made even more vulnerable because they often exist as separate budgetary items that renew on separate schedules. As a result, CIOs are taking a long, hard look at their current licensing options, and the upshot is clear: they need a clear value proposition.

"I'm the one who has to worry about licensing and support and getting approval from the president of the company," says Joe Brunner, MIS manager at Sleepack Printing Co. in Bellwood, Ill. "For me to sell it, my bosses need to be able to understand what we are getting in return."

And for many companies, the new version rights that come along with the acquisition of a Software Assurance (SA) are just not enough.

"Many clients are looking for more value, or at least they have to have better justification," says Al Gillen, research director, systems software, at IDC, a research company in Framingham, Mass. "If they're going to buy SA, they need to know the specific value that will come out of it."

That's why Microsoft® has announced major enhancements to Microsoft Software Assurance for volume licensing, adding richer benefits and features that CIOs can use to drive home the business value of Software Assurance. While Software Assurance benefits vary by licensing program, in general the new



## THE ROI of Microsoft Software Assurance

**Microsoft's newly-enhanced Software Assurance plan delivers greater investment value by offering:**

- Streamlined support and spread out licensing payment schedule, giving CIOs the ability to predict their budget with more confidence;
- Access to support and tools such as TechNet Plus and Problem Resolution Support, adding another layer of assistance to the IT environment;
- Features such as eLearning and the Home Use Program, which help companies add business value by working smarter.



**Microsoft®**



benefits offer:

- **Increased productivity and efficiency**—With such features as the Home Use Program and training vouchers for users and technical staff, Microsoft Software Assurance for volume licensing can help boost corporate productivity by making it simple to work more knowledgeably and flexibly.

- **Streamlined and reduced software license payments**—Software Assurance means that CIOs can dispense with the complexity of separate licensing and support programs, moving license payments into a single sum that generally is lower than the previous options. Depending on the program, the features vary.

- **Easier budgeting**—Software Assurance customers can spread out software payments to keep the budget line items flat—and the CFO happy.

- **Built-in support costs**—Using Software Assurance means that support costs go down, as features such as eLearning and TechNet Online Concierge Chat enable CIOs to stretch their budgets.

“It’s time to sit down and do the business impact analysis again,” says Julie Giera, a research fellow at Forrester Research in Cambridge, Mass. “CIOs will find not only productivity benefits for corporate workers, but there will be real dollars added to the budget as a result of the SA enhance-

ments. I think if you add up the business impact of all these enhancements, from eLearning to training vouchers, the total business value of SA is going to far outstrip the cost of the product. Large companies can save as much as 20 percent, and that’s a big number.”

The enhancements to Software Assurance fall into four key areas: productivity, support, tools and training. Each enhancement is designed to help companies use Software Assurance to build business value, whether it is by helping workers use Microsoft software more effectively, or by cutting IT costs through enhanced support options.

These new enhancements are just being rolled out to customers now, but industry analysts already have given them high marks.

“There’s no question that Microsoft is providing more value from SA,” says IDC’s Gillen.

“They’ve raised the bar, giving customers a lot more value at the expense of Microsoft.”

To summarize the new Software Assurance enhancements:

### **Productivity**

Software Assurance features help corporations increase employee productivity in a number of ways. The Home Use Program for Microsoft Office® System, for example, allows workers to install copies of Microsoft Office software on their home computers for free, thus contributing to flexible, “anytime, anywhere” work hours for many knowledge workers.

“Home use rights are a big thing,” says John McGrath, software licensing specialist at Bell Techlogix Group in Indianapolis, Ind. “It’s key for everybody in terms of productivity, especially with budgets the way they are these days.”

McGrath also likes the Employee Purchase Program, which lets employees purchase up to three copies of certain software titles at a discounted rate. “From the employee standpoint,

the essential elements of  
microsoft software assurance

- **Spread Out Payments**
- **Home Use Program for Microsoft Office System only**
- **New Version Rights**
- **Employee Purchase Program**



that benefit is even better, and it will help improve employee satisfaction," he says.

CIOs also retain the new version rights under Software Assurance, entitling them to new version rights as they become available during the term of their agreement, and streamlining the entire licensing process. Software Assurance also helps with budget control by allowing IS executives to spread out their payments. "One of the things that financial people love is a flat budget—you can't increase the budget by more than 3 percent over last year, for example," says Alvin Park, research director at Gartner, a research company in Stamford, Conn. "If you get into this kind of program, the cost remains flat every year. You don't have to go through the pain and agony of asking for a big chunk of money every three or four years."

#### Support and Tools

CIOs can take advantage of the extensive array of support features and tools that Microsoft has added across the licensing platforms of Software Assurance to help their IT staff resolve issues faster and more efficiently—and save money in

the process.

For example, TechNet Plus, an extensive series of CD-ROM media containing new product and other information, is now also rolled into Software Assurance. "If you've been paying for several subscriptions, this would be a way to save money, since it now comes with SA," notes Park.

McGrath says that in his talks with clients, this feature, plus Problem Resolution Support, has gotten the most attention. "Getting hold of the latest and greatest, or [being able to] more easily deploy what they have—that's what IT guys live for," says McGrath.

Depending on the program you're in, Problem Resolution Support, in which standard edition server Software Assurance customers have access to web support and enterprise edition server Software Assurance clients have access to both web and phone support, is one of the biggest new features, Park says. "That has to be the

the essential elements of  
microsoft software assurance

SUPPORT  
& TOOLS

- TechNet Online Concierge Chat
- TechNet Plus
- Problem Resolution Support
- Extended Lifecycle Hotfix Support
- Microsoft Windows Preinstallation Environment Tool

## TOP 5 Things CIOs Need to Know About Microsoft's Software Assurance

**1 It's a productivity booster.** "CIOs need to think about the overall effect of getting more productivity out of employees across the company. If you get free home use rights for the software, you'll get more productivity out of employees because they'll take work home and do it then."

—ALVIN PARK, GARTNER

**2 It has demonstrable business value.** "The less obvious features and functions of SA will have even more of an impact on the business. Look at corporate error reporting and the control available inside IT. You can get good IT folks to do trend analysis and see problems before they impact the business."

—JULIE GIERA, FORRESTER RESEARCH

**3 It shows clearly what you're getting for your money.** "Microsoft has added valuable options to SA, and provided a long-term path for where customers are

going to spend their money and what they're going to get for it. This kind of stability makes it easier for customers to make a long-term commitment to Microsoft and to justify the financial decision."

—STEVE MCHALE, IDC

**4 Its benefits extend beyond IS.** "The changes are tangibly more economical and provide immediate business value. I estimate that very large enterprises can save hundreds of thousands and even millions of dollars with SA."

—LAURA DIDIO, YANKEE GROUP

**5 It's a step in the right direction for Microsoft and its customers.** "It's impossible to go forward and say that there's anything really bad about the changes to the SA program."

—AL GILLEN, IDC



most valuable," he says. "The CIO may not have to spend as much on support as they have in the past if they can use this support to offset other costs."

## the essential elements of microsoft software assurance

### TRAINING

- eLearning
- Training Vouchers

support for Software Assurance customers, which extends support for up to two years on software versions that are generally no

longer supported by Microsoft. "It gives me a little more leeway on when I want to do things," says Sleepeck's Brunner. "I've got more control, so I'm not under the gun."

There's also the Windows Pre-installation Environment tool (WinPE), which lets IT workers copy OS and pre-install the Microsoft Windows® desktop operating system onto their machines. "It will remotely install and configure on something that doesn't have the operating system," says IDC's Gillen. "It's useful for large scale rollouts."

Software Assurance also includes Corporate Error Reporting, which allows IT departments to track the error reports generated by Microsoft Windows XP. "It could help them figure out what applications are blowing up," says Gillen. "That's a pretty cool tool to have."

"All these benefits come down to an issue of time—they offer the ability to save time or do things on flex time," says Bell's McGrath. "The bottom line is that companies that take advantage of them can become more productive."

### Training

Training is often one of the first items to be cut from IT budgets. By adding benefits such as eLearning and third-party training vouchers for IT personnel to Software Assurance, Microsoft is helping companies make their technology dollars work harder. The end result: CIOs can help their companies get the job done smarter. For example, Steven Edwards, vice president and IT director of Solomon Cordwell Buenz & Associates, Inc., an architectural company in Chicago, found

the eLearning option very appealing because it allows users to get advanced training on Microsoft software via the web, at a schedule they set for themselves. "When we have to spend money on advanced training, it's for software such as CAD," Edwards says. "So, eLearning helps companies like mine that can't afford a large training budget. Now our employees have no excuse not to learn."

"Microsoft has more experience than my shop does, and can provide great convenience as well," agrees Brunner. "This lets people learn at their own pace and time."

Third-party training vouchers, which CIOs can use to provide formal IT training at Microsoft Certified Technical Education Centers, also have an easily quantifiable value, says IDC's Gillen.

### Conclusion

In the end, the responsibility for IT value sits squarely on the CIO's shoulders. If CIOs are to clearly articulate the value of IT to boardroom-level executives, they must decide which technology and services represent the most value for the dollar. Software Assurance, with its ability to beef up employee skills through training and provide built-in incentives to employees, can prove a key support in that ongoing struggle. By boosting end-user activity, productivity and morale, Microsoft's Software Assurance for volume licensing can help build a happier, more productive company.

## *For More Information on Software Assurance*

**To learn more about the enhancements to Microsoft's Software Assurance for volume licensing programs, go to [www.microsoft.com/licensing](http://www.microsoft.com/licensing) or contact your Microsoft Account Manager or Preferred Reseller**

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—CHRIS ACTON, GLOBAL IS, RIO TINTO BORAX

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# Washington Watch

Edited by Elana Varon

## TRADE

### Proposed Rules Add IT Requirement to Land, Air Shipments

**NEW IMPORT REGULATIONS** being finalized this year may force companies importing products into the United States by land or air to computerize their shipping manifests if they have not already done so.

The regulations would require companies shipping products into and out of the United States to electronically file manifests with the Bureau of Customs and Border Protection, which is part of the Department of Homeland Security, in advance of the shipments. The new rules, governing all types of transportation, are similar in some ways to a 2002 rule requiring a notice to be filed 24 hours before the products are loaded onto a ship bound for the United States (see "New Rules for Imports Will Save Supply Chain Costs," [www.cio.com/printlinks](http://www.cio.com/printlinks)).

The minimum notice for a shipment coming into the United States by air would be four hours before arrival, truck shipments would be one hour or less, and rail shipments would be two hours.

An earlier version of the regulation, more similar to the 24-hour rule, prompted complaints from industries such as computer vendors that rely on air freight for overnight service to customers, but newer proposals released at the end of July seem to be less controversial. The DHS argues that the new regulations are needed to give border agents more notice on shipments coming into the country, according to an agency announce-

ment about the proposal. "Obviously, this is a national security issue, so we understand why they want to do this," says AnnMarie Treglia, director of international trade regulation for AeA, a technology trade association. "But things that look good on paper don't always work in the real world."

George Weise, a former U.S. Customs Service commissioner and now a vice president with software and consulting vendor

Vastera, says the new regulations will force companies to abandon fax and paper manifests to keep up with the regulation's electronic filing requirements. The customs agency operates several systems through which it accepts electronic manifests via electronic data interchange, but not all shippers use them. The new regulations are due to be finished by November.

—Grant Gross

## OUTSOURCING

### New Export Rules Ease IT Work in India

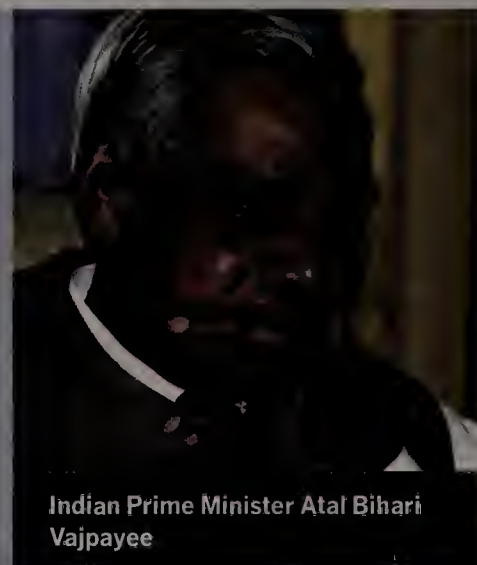
**OUTSOURCING TO INDIA** should become easier for U.S.-based companies thanks to recent actions by the Department of Commerce to loosen export rules and to inaugurate a U.S. and Indian government working group dedicated to improving high-tech commerce between the two countries.

In June, the Commerce Department lifted some arcane and outdated export restrictions, such as one that prevented U.S. citizens from bringing laptops equipped with encryption overseas without its approval, and clarified other provisions, such as protections against software piracy by foreign companies that might modify and resell software from the United States. The United States restricts high-tech exports that officials believe can be used to build nuclear weapons.

The bigger development, however, was the July meeting of the U.S.-India High-Technology Cooperation Group (HTCG), which President Bush and Indian Prime Minister Atal Bihari Vajpayee agreed to form last November in response to the rapid increase in IT outsourcing by U.S. companies. According to Matthew Borman, deputy assistant secretary of commerce for export administration, the United States wants India to reduce or eliminate tariffs on high-tech products and to take other measures to facilitate Indian imports of high-tech goods. India has asked the United States to review restrictions on American exports and business dealings with certain Indian government entities. (For more about how India is changing its laws to support U.S. interests, see "India to Adopt Data Privacy Rules," Sept. 1, 2003.)

Meanwhile, the group plans to work closely with American and Indian companies to identify next steps on the agenda. "The vast majority of IT trade is not subject to restrictions," says Borman. "But we are looking to identify barriers the government can deal with," while still limiting the spread of equipment that can be used for weaponry.

—Ben Worthen



Indian Prime Minister Atal Bihari Vajpayee





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## LEADERSHIP

# What if Napoleon Had Been a CIO...

THE CIO POSITION HAS BEEN AROUND SINCE THE 1980S, and with this issue, CIO celebrates its 16th anniversary. IT management is a young profession, but what if the job had been around for centuries? That got us thinking about great leaders from history and the qualities they would have brought to the CIO role.

## Winston Churchill (1874-1965)



**Achievements:** Led Britain in World War II. Awarded Nobel Prize for literature.  
**Strengths:** Boldness. Technology visionary.

Increased production of ships during runup to World War I. Also invented modern battle tank.

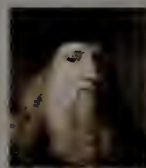
**Weaknesses:** Allegedly drank a quart of brandy a day. Ambitiousness bred distrust among peers. Overbearing.  
**Proposed job today:** CIO of the FBI.

middle managers, e.g., Sir Francis Walsingham and Sir William Cecil. Fostered creative environment where people like William Shakespeare could flourish.

**Weakness:** Failed to implement succession plan until on her deathbed, leading to uncertainty among London decision-makers.

**Proposed job today:** CIO of California.

## Leonardo da Vinci (1452-1519)



**Achievements:** Painted the *Mona Lisa* and *The Last Supper*. Designed flying machines centuries before the Wright brothers.

**Strengths:** Thinking outside the box. A Renaissance man, really. Well-rounded.

**Weakness:** Follow-through. Left projects—such as equestrian monuments to his Milan patrons—unfinished.

**Proposed job today:** CIO at the Palo Alto Research Center.

## Napoleon Bonaparte (1769-1821)



**Achievement:** Conquered Europe.  
**Strengths:** Excellent administrator (centralized governance, reformed court

system, started Bank of France). Supply chain guru (perfected strategy of “living off the land” his armies invaded—until Russian project failure). Mergers and acquisitions expertise.

**Weaknesses:** Not collegial. Failed to seek input from staff. Failed to limit project scope creep.

**Proposed job today:** IT czar, Department of Homeland Security.

## Franklin D. Roosevelt (1882-1945)



**Achievements:** Led U.S. out of Great Depression and to brink of World War II victory. Established Social Security.

**Strengths:** Confidence. Crisis management. Turnaround expert. Good communicator (see “Fireside Chats”).

**Weaknesses:** Poor judge of character (he thought “Uncle Joe” Stalin, as he called him, trustworthy). High-handed (sought to pack Supreme Court with yes-men).

**Proposed job today:** CIO for hire and turnaround consultant.

—Michael Goldberg

## Elizabeth I (1533-1603)



**Achievements:** Inheriting a massive debt, brought stability to enterprise (ruled for 45 years). Kept Spain and France at arm's length so England could prosper.

**Strengths:** Diplomacy. Eye for talented



## TRAVEL

# In-Flight Service

WHEN YOU'VE GOT a luxury travel service that caters to the likes of Tiger Woods and Arnold Schwarzenegger, it pays to keep tabs on what your customers want.

That need inspired NetJets—a company that provides paying customers “fractional ownership” of private aircraft—to build a custom CRM system that monitors a fleet of more than 500 jets and tracks 2,800 pilots as they make a quarter-million flights this year for patrons who pay millions of dollars for guaranteed anywhere, anytime air travel.

The system, called IntelliJet 2, is the third generation of an application originally written for DOS. But where the old system required considerable manual tracking, the latest version tracks details of every flight and can quickly and automatically adjust as customer needs change, even at the last moment (such as requiring a larger plane, changing destinations or even wanting a particular bottle of wine on the flight). “We’re very flexible in the way that we allow our customers to use our service,” says NetJets CIO Mike Midkiff. “We allow them to make changes at any time, up to and even after the departure.”

The system combines custom code built around Persistence Software’s Data Services platform, which guarantees that users always have the most up-to-date information, regardless of their location. IntelliJet 2 can even push last-second information to flight crews via BlackBerry pagers. And future upgrades will allow NetJets suppliers, such as limo services and travel agencies, to receive automatic updates to itineraries.

—Christopher Lindquist

SOURCES: Columbia Encyclopedia, Sixth Edition, 2001; also *The Last Lion*, by William Manchester

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# Patricia Wallington | Total Leadership

## About Face!

Sometimes changing direction midstream  
is the best display of leadership

**HERE'S A SCENARIO** that might sound familiar. Times are difficult at your company. The turnaround plan you developed last year was just right for the needs of the organization—or so you thought—but for some reason, it's just not going anywhere. The plan is underfunded and underresourced, momentum has slowed to a crawl, and stakeholder enthusiasm has waned. You even detect the beginnings of hallway grumbling. What should you do—hold fast or scrap everything in favor of a new plan?

Now is the time to plumb the depths of your resourcefulness and reach for a flexible leadership style. First, repeat after me: The greatest plan, unimplemented, is not worth the paper it's written on. Your objective is to get things done—even if it requires undoing a lot of previous effort. Letting go of preconceived notions is the first order of business, but it's sometimes the hardest thing to do. The current plan might indeed be the best one for your company, but if you appear to be closed to alternatives, that could sound the plan's death knell. Here are some things you can do to show that you're open to change—if it's in the right direction.

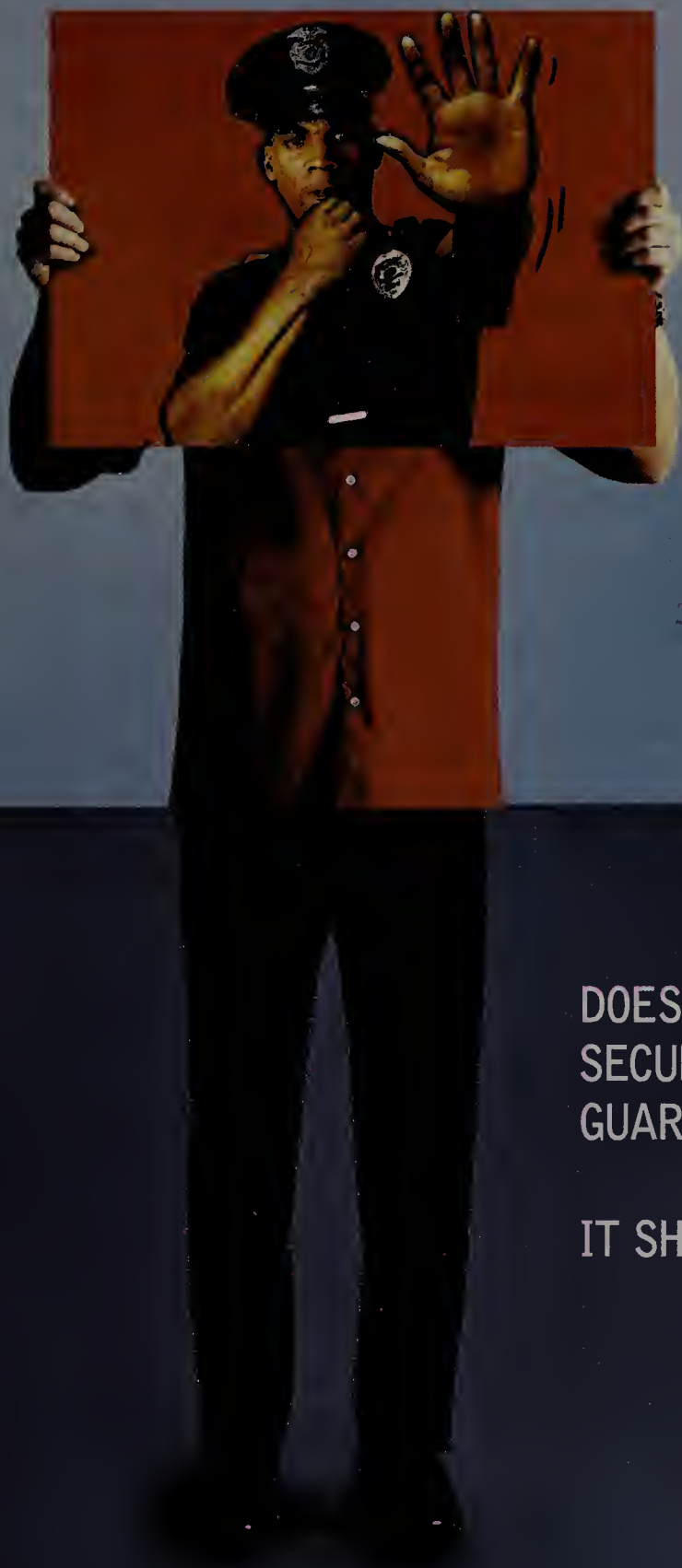
**Lay the foundation.** An important element of success will be the foundation you lay for change. Begin to “unfreeze” the envi-

ronment that is set on the current plan. Point out changes in the market that could impact your strategy. Highlight competitors' actions that demonstrate their adaptability. Collect examples of the failures that can be attributed to unwillingness to change. You should consider all your constituencies when devising communiqués about what the future holds. Senior executives, the business partners, your staff, even vendors, will have a stake in any new direction to be pursued. Now is not the time to surprise them.

**Analyze the blocks.** Assess why the current plan doesn't seem to be working. Is the business less committed to it than you originally thought? Have there been significant changes in the company's financial circumstances? Are technology changes introducing fear of early obsolescence? Are people's skills inadequate for the task? Has the risk elevated? Understanding these issues—their depth and breadth—will help you craft a solution that will fit the changing nature of the problem and establish new priorities.



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**Reengineer or redo.** Perhaps you can hold on to your vision for change but approach the implementation differently. Be creative, and keep the focus on what it will take to get things moving. Back in the heyday of reengineering, I had a project that just couldn't get past first base. Everyone expressed support, but it just didn't happen. I realized that the proposed change was just

line plan. Is there a 90 percent solution that will work? Now might be the time to say, "Why not give it a try?"

Get help, especially if you need a new vision. Other executives not invested in the project can help you think beyond the existing business plan. Are there companies with the same problems? Find out how they are solving them. Consider ventures

with these companies or vendors. Change your mind-set from "How much do I need?" to "How little can I do this with?"

**Communicate.** Develop communications to explain changes. Be open and truthful. Don't let rumors beat you to the punch. If appropriate, align the new plan with the business strategy that changed.

Above all, be positive. Sometimes things happen for the best. That necessary change could turn out to be an advantage.

**Wimp not.** One of the truisms I discovered in my career was that it is harder to kill a failing project than to let it drift along. So it takes courage to show the flexibility to adapt to emerging environmental issues. There will surely be some who will criticize change—maybe even the same people who were grumbling in the hallway about the lack of progress. Keep your

**It is harder to kill a failing project than to let it drift along. It takes courage to show the flexibility to adapt to emerging environmental issues.**

too radical for the environment, technically and organizationally. We revised our approach to allow for a more gradual, phased implementation. The solution was not as elegant, it cost more and took longer than the original business plan, but it helped us accomplish our goals.

Other reengineering actions to consider include aiming for easier or more concrete targets, eliminating some steps and using a zigzag path to your destination rather than a straight-

# I AM A CISCO CATALYST 6500.



focus on what's possible. When success is on the horizon, the grumblers will begin to take credit! I have one caution: Flexibility is not a strategy you can invoke too often without earning the "Flavor of the Month" award.

**Build in flexibility.** Because this world we live in is ever-changing, it's wise to build as much flexibility and agility into your business plan as you can. That will help obviate the need to make dramatic changes frequently. A sound start is to know your environment and fit the solution to the problem. Avoid being a solution in search of a problem—the "Johnny One-Note" phenomenon. I once observed a new employee try to apply a solution he had utilized successfully in his previous company: Buy a well-known software package, install it with no modifications, and change all business processes to fit the package design. Unfortunately, the size, complexity and cultures of the two companies were very different. It resulted in a very costly, painful failure for the company and the individual.

Create a range of alternative plans that fit different scenarios. Build into them the triggers that will cause a shift in strategy when the circumstances match a different scenario. Conduct regular reviews in which the original assumptions are retested for relevance. It is changes in these assumptions that

will be the leading indicators of a changing environment.

Since funding is frequently the most volatile factor in planning, develop upscale and downscale versions of your business plans. Align the features of a plan with a minimum investment figure and time line. That will be the lowest level of implementation that can succeed. Then outline the enriched version with its investment level and time line. This will force you to think through the ramifications of having to downscale before it becomes an emergency. It can also preclude falling into the trap of getting approval for an enriched business plan but not the funding to support it.

Remember that in today's world, success is not about being the greatest thinker but about who can get things done. Oliver Wendell Holmes said it best: "Greatness is not in where we stand, but in what direction we are moving. We must sail sometimes with the wind and sometimes against it—but sail we must, and not drift, nor lie at anchor." **CIO**

How have you built flexibility into your plans? Tell us by writing to [leadership@cio.com](mailto:leadership@cio.com). Before retiring in 1999, Patricia Wallington was corporate vice president and CIO at Xerox. She is now president of CIO Associates in Sarasota, Fla.



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# Michael Schrage | Making IT Work

It's All About the Execution

## Don't Trust Your Code to Strangers

If you really want an effective implementation, *don't* outsource your software development

**DURING A CASUAL CONVERSATION** two years ago, Wal-Mart's then-CIO told me something about his company's software development practice that I simply didn't believe. So I made a couple of calls to confirm it. He wasn't kidding.

He told me that before Wal-Mart's people actually write and deploy an app, they make the developer work in the job the app is being written to support. If Wal-Mart devises a new point-of-sale system, for example, software team members have to spend time working the cash registers first. Design empathy for software development is, of course, a wonderful thing. There's also no argument to be made against the world's largest retailer's enviable returns on its enormous IT investments. The numbers speak for themselves.

That said, making your programmers work the registers or inventory the stockrooms represents a level of involvement that's not taught in most software curricula. I had never heard of or observed a major company making that kind of ongoing commitment.

Listening to the user, yes; *being* the user, no.

But the Wal-Mart story provokes an obvious but underap-



preciated aspect of software development methodology. Empathy may or may not lead to high-quality code, but it surely improves the chances that the app will be adopted and implemented by its intended users. CIOs can't afford to ignore the critical link between software development and application deployment. Yet they often do. They believe that they can actually save money by outsourcing the development of code and divorcing development and deployment. That's simply not true.

This development/deployment dichotomy is starkly highlighted by the tension between uber-trends like outsourcing and clever cult software methodologies like extreme programming (XP). CIOs who care about cost-effective alignment of development with implementation need to understand and manage that tension. (Originally, I wanted this column to explore the software schism between outsourcing at one extreme and XP at the other solely in the context of development. But I changed my

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mind precisely because I realized you can't discuss development without acknowledging its impact on deployment.)

XP's supporters tend to be zealots who are rather contemptuous of more traditional development methodologies. Yes, there's a cultish quality to their writings and workshops. But then, XP's champions embraced their heresies only after painful failures with status quo development practices. They care enormously about implementation.

I like XP because it represents a gutsy and rigorous alternative to the academic development pap I was exposed to in school and the desperate, ad hoc and the why-don't-you-please-shut-up-and-follow-the-process managerial perversions I observed in the "real

prise less as a guide to craft "better" code and more as a medium to facilitate more effective systems implementation. Why? Because the CIOs I know all seem more frustrated today by implementation issues than by development problems. Implementation often exposes the cracks and flaws in the development methodologies.

This is the single biggest risk posed by outsourcing software development. Organizations discover that, in fact, they really don't know how to define requirements. They discover they don't really know how the act of using an application changes their awareness of the features and functionality they really need. The economics of outsourcing preclude the iterative interactions that give developers the knowledge—and empathy—of real user needs as opposed to what users say they need.

This creates the double-barreled problem of software that not only lacks essential functionality but—because of that lack—becomes both more difficult and more expensive to deploy. Outsourcing's efforts to separate the economics of development from the economics of implementation end up undermining the economics of both.

## Extreme programming embraces implementation as a technical cost of development. Methodologies that delegate deployment to the user end up costing more.

world." XP's relentless use of cases, its insistence on "pair programming" (the code is designed in teams or pairs), and the aggressively iterative link between coding and testing strike me as extremely productive. There is nothing lazy about XP. Put another way: It's much harder to "cheat" in the XP methodology than in most other methodologies we could name.

This difficulty in cheating or gaming XP is, I think, one of the main reasons why so many software development organizations resist it. The methodology is almost too demanding and too transparent; there's little room for developers or—just as important, their clients—to hide. XP is explicitly designed to "stress test" requirements, assumptions and nascent implementations in near real-time. Implementation is thus inherently a part of XP's development requirements.

But if you're a CIO, XP represents the opposite of outsourcing. Outsourcing software development effectively means you don't give a damn about the methodology: You just want to get what you ordered with the right features and functionality at the right price and schedule. By contrast, XP is all about development

intimacy in almost the Wal-Mart sense. You care so deeply about the software being created that you drive its development with rigor, intensity and flexibility.

XP's design approach, thus, could prove far more useful to CIOs and the enter-

The reason why programming methodologies such as XP deserve CIOs' attention, therefore, is not that they make for tighter code developed faster, better, cheaper but because they offer an opportunity to review the connection between how software is written versus how it is actually implemented as an app.

What portions of the company's applications portfolio *should never* be outsourced because of deployment costs? Which apps should always be outsourced precisely because the cost/benefit of rollout is completely understood? Is this a conversation that the CIO is prepared to have with the operating committee?

Unfortunately, the lure of "cheaper" development à la outsourcing distorts CIOs' judgment. They save a million dollars on development but pay an extra \$500,000 on deployment and waste an extra three months because implementation was a tertiary concern for the programmers. By contrast, I have never heard of an XP initiative that faced any technical implementation issues of note.

Why? Because this methodology embraces implementation as a technical cost of development, not as something that's the customer's problem. Methodologies that delegate deployment to the user are sewing the seeds of cost-ineffectiveness.

To be sure, superior requirements, features and functionality are wonderful. But they mean nothing unless they're implemented well. Just ask Wal-Mart. **CIO**

Michael Schrage is codirector of the MIT Media Lab's eMarkets Initiative. He can be reached via e-mail at [schrage@media.mit.edu](mailto:schrage@media.mit.edu).



### Learn More About Development Metrics

Michael Schrage points out the value of extreme programming over other kinds. A Robert Frances Group report gets into the nitty-gritty of **METRICS FOR APPLICATION DEVELOPMENT**. To see the analyst's take on addressing validation, verification and productivity go to [www.cio.com/printlinks](http://www.cio.com/printlinks).

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James Gorman (left), executive VP of Merrill Lynch's Global Private Client Group, and CIO John Cummings see the company's outsourcing deal—a departure from past in-house efforts—as a model for future IT projects.

# MERRILL LYNCH'S BILLION DOLLAR

BY TODD DATZ

## Reader ROI

Why Merrill Lynch decided to outsource its new workstation

How Merrill, its general contractor and the subcontractors shared project responsibilities

Why the integration is Web services-based

Next month, Merrill Lynch plans to roll out a new \$1 billion platform built by an all-star team of vendors and one general contractor with an unusual role. If successful, how Merrill managed it all may point the way to the future of IT outsourcing.



## VEN THOUGH MANY COMPANIES HAVE PUT THE KIBOSH ON BIG TECHNOLOGY INVESTMENTS

these past few years, some, like financial services giant Merrill Lynch, have sucked in their corporate stomachs and taken the plunge in the quest for competitive advantage. For the past nine months or so, more than 400 people from Merrill's Global Private Client (GPC) and Global Technology and Services groups, Thomson Financial, and a number of other vendors have been working feverishly on Merrill's biggest outsourcing initiative ever, a highly complex \$1 billion makeover of its wealth management workstation platform designed to improve the efficiency of Merrill's financial advisers (FAs). In the lingua franca of financial services, that means Merrill's FAs are getting new, more powerful desktops geared toward capturing more of the assets of their high-net-worth customers.

The new platform also represents a major shift in the way Merrill approaches IT initiatives. In the 1990s, Merrill developed its previous platform, Trusted Global Advisor (TGA), as it did any other major system: in-house. The thought of outsourcing a critical business system to a vendor would have been deemed madness by any financial services organization and perhaps a confession that its IT department was not up to snuff. But last year, Merrill inked a contract that outsources much of the responsibility for its new platform to Thomson Financial, a large market data vendor with no previous experience managing an integration project of this size.

In this hybrid outsourcing model, Thomson, which serves as general contractor, is responsible for the desktop and is managing a number of subcontractors—a veritable who's who of vendor all-stars including AT&T, Cap Gemini Ernst & Young, Dell, HP, IBM and Microsoft. Merrill retains control of the integration layer, which connects its proprietary databases, and manages Siebel, the platform's CRM component.

Merrill and Thomson are working in a tight partnership, the bedrock of which is a voluminous contract containing lots of service-level agreements spelling out bonuses and penalties. And Merrill has not only outsourced much of the project, it has also shed itself of the responsibility of dealing with the subcontractors. "Thomson is on the hook for some SLAs, so it's in their interests that the subcontractors are successful," says Byron Vielehr, cohead and CTO for the GPC.

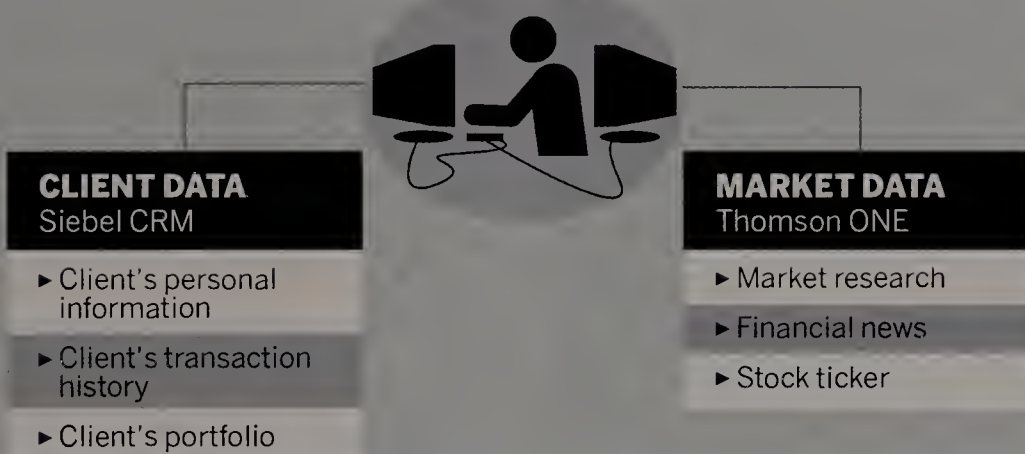


Ralph Szygenda, Group Vice-President and CIO, General Motors

Although the use of a general contractor and subcontractors is not uncommon in large outsourcing deals, what gives this one a different twist is Thomson's role. "I'd say it's unusual in a deal of that size for the supplier of a proprietary system to be general contractor for the rollout," says Michael Murphy, a partner in the technology group at the legal firm Shaw Pittman who specializes in IT outsourcing deals. (Shaw Pittman worked on the Merrill-Thomson deal and could not comment on the contract's specifics.) "More common would be using

## WHAT THE MERRILL BROKER SEES

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more of a generalist outsourcer, such as IBM, EDS or CSC, that focuses on managing implementation projects from an infrastructure perspective," Murphy says.

So far, according to Merrill, the rollout, which begins next month, is right on schedule. If it's successful, Thomson won't be shy about hawking its general contracting services to the rest of Wall Street, and Merrill will likely continue marching down the outsourcing path, complementing its in-house expertise with best-of-breed providers. "There's no stigma attached to being really good integrators of commercially available products and building where you need to," says John Cummings, senior vice president and chief information and services officer of Merrill Lynch. "We'll look back and probably say this project was one of the turning points for that."

Dennis Ceru, director of retail brokerage and investing at research and advisory company TowerGroup, notes that "just the fact Merrill is outsourcing such a critical system at all is being watched closely by the financial services industry. It's huge," he says. "It's a major Wall Street firm with the largest number of registered brokers making a decision to partner with external providers to create its lifeblood system."

### Merrill's Outsourcing Strategy

The platform Merrill is replacing, TGA, was a giant, monolithic application that required tons of bandwidth and demanded an incredible amount of testing before every new appli-



cation was added. "It was brittle technology, old technology, that was expensive to maintain and support," says the GPC's Vielehr. Plus, the world was moving away from client/server to the Internet. And TGA didn't have any CRM capabilities.

In addition, it was difficult to integrate Merrill's online sites (where clients could do transactions) with TGA. That led to a mismatch between the information clients saw on the websites and what FAs saw on their screens.

So Merrill began exploring options as the mind-set among Merrill executives, led by Chairman and CEO Stan O'Neal (then head of the GPC), shifted from the IT macho of "build everything yourself" to the more conservative "build whatever can differentiate you from your competitors, but buy the rest."

"Our core competence is helping people manage their financial affairs," not CRM or trading systems or networks, says James Gorman, executive vice president of the GPC.

Or, as Mark Greenberg, first vice president and program manager for the wealth management technology platform project, says, "I'd rather be working on some really neat analytical tool and understanding the mind of an analyst than banging out some account maintenance type of thing."

According to Vielehr, this shift in the GPC's thinking "was probably the largest transformation of a technology shop in the United States." And a big shop it is, with an IT staff of 1,800 that supports 35,000 desktops. The GPC itself is the leading issuer of debit cards in the world, the seventh largest bank, and it has major insurance, mortgage and 401(k) businesses. With all those silos, a lot of uncoordinated IT activity was going on.

### Looking for Mr. Good Vendor

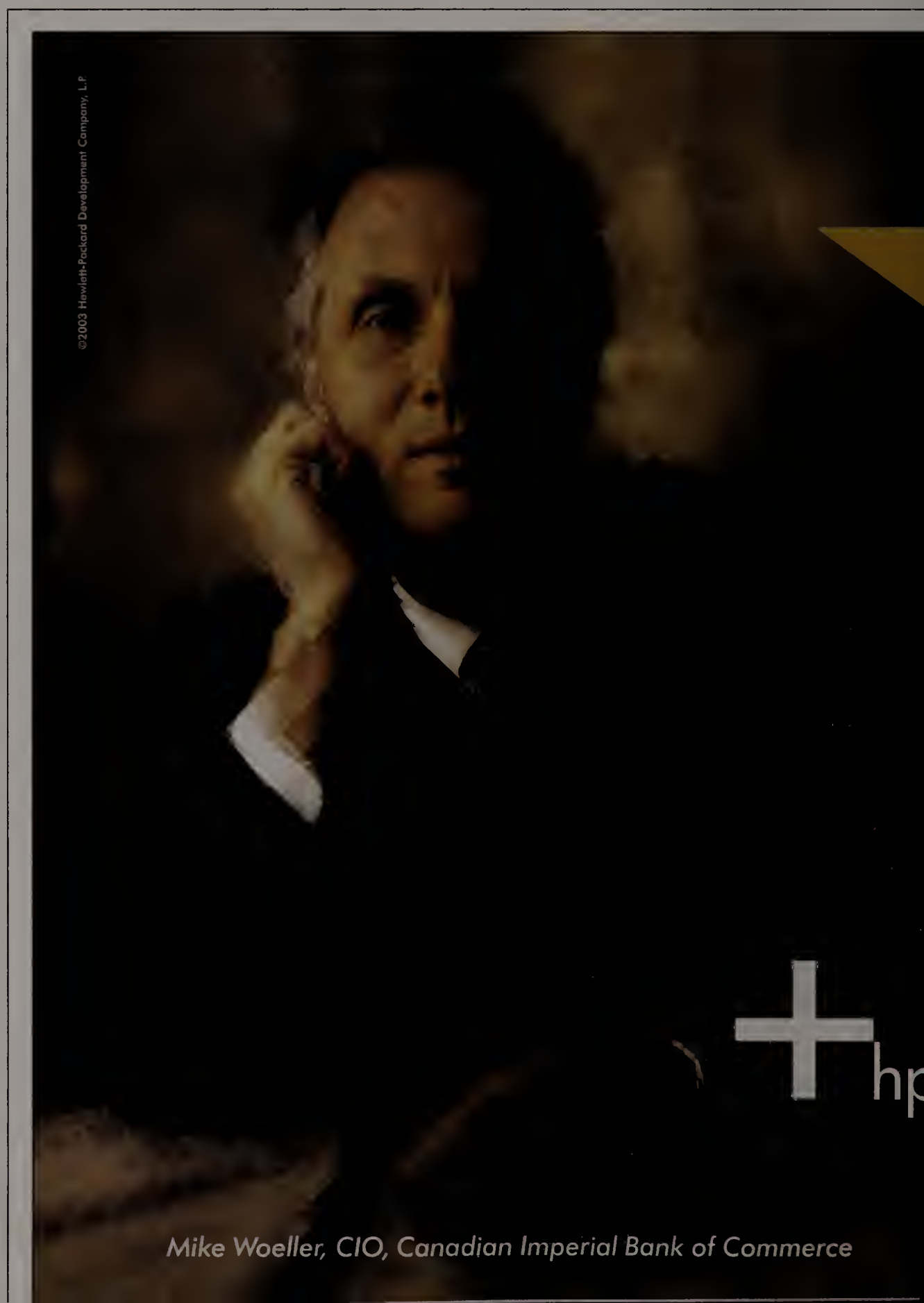
At first, GPC's execs leaned toward having one vendor manage the whole project. But, given its size and complexity, they concluded that no one could do it all—manage the desktop, the networks, the hardware and the integration issues. So they decided to hire one vendor to help with the integration and act as a general contractor. "We wanted some-

one to have responsibility for the [desktop] all the way back, manage the subcontractors and have responsibility for the SLAs," Vielehr says.

The company tried out three vendors—Bloomberg, Reuters and Thomson Financial—in a few branches. In November 2002, Merrill announced that Thomson had won the bidding. "The most important driver was the comfort level Merrill execs had with Thomson execs, and Merrill's belief that Thomson's senior management team would stay intimately involved in the project," says Vielehr, also citing the company's strong

background in retail, its financial market data feeds and its other wealth management applications. Merrill also valued Thomson's e-learning expertise. During the pilots, Vielehr says, "it became obvious how critical training was." He liked the fact that Merrill's FAs would have access to Thomson's e-learning product on the new workstations.

Merrill hammered out a contract with Thomson that included SLAs, set out performance bonuses, established penalties and covered more than a few other details. "There's a whole bunch of SLAs around



Mike Woeller, CIO, Canadian Imperial Bank of Commerce

network availability and latency," says Vielehr. There are others addressing response times on the client websites, and bonuses are attached to how well the websites score on user surveys. Similarly, there are SLAs in place for the FAs' desktops—response times, uptime in branches and training satisfaction. Taking into account user feedback—such as website response times and training satisfaction—is a new wrinkle for Merrill, says CIO Cummings. "For us, that's a unique series of SLAs that aren't driven just by delivery times and metrics, but are also driven by the users'

end view of what's being provided."

Jim Alberg, who works with Murphy as a partner in the technology group at Shaw Pittman, says that good outsourcing deals should measure customer satisfaction and tie it to compensation. "It's something that should be done, but not everybody does it," he says.

Even though Merrill's contract with Thomson eventually reached 1,500 pages and covers as much ground as possible, some flexibility is built in. For example, execs decided after the fact that it made more sense

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## WHAT \$1 BILLION BUYS

### Merrill Lynch's New Workstation

**Project:** New wealth management workstation

**Goal:** To provide Merrill financial advisers with a fully integrated desktop that incorporates market data, financial planning tools and CRM capabilities

**Cost:** \$1 billion over five years

**Major vendors:** Thomson Financial (general contractor), Siebel (CRM), IBM (branch support), Dell (hardware), Microsoft (integration framework), AT&T (network), HP (network products and services), Cap Gemini Ernst & Young (systems integration and website development)

**Workers on project (including vendors):** More than 400

**Financial advisers served:** 14,000

**Desktops on platform:** 25,000

**Desktop specs:** 2.4GHz Dells, 1GB RAM, two 18-inch flat panel monitors

to have Thomson deliver alerts to FAs on the desktops rather than Merrill. So, without ruffling any feathers, they changed the contract.

### Good Governance in a New Outsourcing Model

Merrill's decision to put Thomson at the helm of this project over a variety of subcontractors has, according to both Merrill and Thomson and the other vendors, worked well so far. "It's a very unique model," says Thomson Financial's Lou Eccleston, president of the banking and brokerage group. "It combines the traditional vendor role and elevates it to a partnership role, includes consultant-type roles, and brings it all into one piece."

He asserts that the development and ongoing support costs turned out to be cheaper here than they would have been in



## THE QUEST FOR THE HIGH-MARGIN CUSTOMER

Financial services companies compete for the rich

For many years, brokers could buy vacation homes in the Hamptons just by executing trades. But when the stock market tanked, individual investors fled, and they've been slow to come back. "The old model [for brokers] failed. That is, I'll tell you what stocks to buy as they go up," says Shaw Lively, research manager at Financial Insights, an analyst company.

Today, the buzzword in the financial services game is diversification. Companies are trolling for new revenue streams by trying to become one-stop shops for all their clients' financial needs, including tax planning, asset allocation, mortgages and insurance. And the most sought-after clients are those who think they need (and can afford) the most services.

So Fidelity, Merrill Lynch, UBS and other financial services companies are all in hot pursuit of a bigger slice of the high-net-worth customer pie (Merrill applies the moniker to people with \$1 million or more in assets, excluding primary residential real estate).

And there are plenty of them: 2 million in the United States at the end of 2002 (a slight drop from 2001), according to the "2003 World Wealth Report," published by Cap Gemini Ernst & Young and Merrill Lynch. These customers provide nearly two-thirds of the more than \$1 trillion in assets that Merrill's Global Private Client Group manages. —T.D.

a more traditional outsourcing model. "We're not general contractors by profession," says Eccleston. "Merrill is getting that service at a far lower price because we're part of the whole package, including content and applications."

TowerGroup's Ceru notes that "in the past, I think a lot of outsourcing was done in an almost hands-off, or what I would call a delegate-and-abdicate mentality. It was delegated to a third party, then abdicated in the true sense of ownership. Today, the firm is saying to vendors, You're in this with us. It's almost

as if you're a division of our company."

In addition to Thomson, which is managing the online function, the players on this project all have stars on the IT walk of fame: AT&T, managing the network; Cap Gemini Ernst & Young, serving as the systems integrator for Siebel and helping to build the online sites; Dell, supplying the desktops; HP, providing network products and services; IBM, being responsible for the physical rollout of components and branch support; Microsoft, furnishing .Net for the integration framework; and Siebel,



Kathryn Walker, Sr. VP, Network Services, Sprint Corp.

creating the CRM application.

The key to keeping the project on track has been the tight alignment between Merrill and Thomson. The two aren't strangers (Merrill has used Thomson's ILX market data product for the past five years), so they were already comfortable with each other. Merrill and Thomson each have executive steering committees dedicated to the project that meet monthly. Executives also regularly receive updates: A weekly executive dashboard highlights the status of the project's many components. And the conversations reach all the way

to the top: "Dick Harrington [president and CEO of Thomson Corp.] literally talks to Stan O'Neal," says Eccleston.

On the operational front, some 40 Thomson employees and vendor contractors work onsite with Merrill folks, under the guidance of Greenberg and Ed Berlin, Greenberg's counterpart as project manager at Thomson. Organizationally, the goal has been to structure as flat as possible. So for the project's three major areas—desktop, infrastructure and online—teams of peers (as they're known) were put in place that

**Given**  
the project's complexity, Merrill Lynch decided to hire one vendor, a general contractor, to help with integration.

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include representatives from the vendors as well as Merrill and Thomson. "We want everyone to take ownership," Vielehr says.

With all those vendors and a condensed development schedule, "there are plenty of thorny issues on a day-to-day basis," says Vielehr. The main bones of contention revolve around scheduling. "A lot of it is where the mid-level of teams feel like they're waiting for somebody, or somebody is late in their mind," says Cummings.

### Soul of a New Platform

The 25,000 new workstations already rolled out to the U.S. branches and offices are 2.4GHz Dell desktops with a gigabyte of RAM and two 18-inch flat panel monitors: one has a Siebel screen with CRM client data, the other a Thomson screen with financial data, news and wealth management applications. (See "What \$1 Billion Buys," Page 51.) But it's the melding of some 130 old and new applications in an integration framework (IF) that's the heart and soul of the workstation. Merrill began building the IF last year, before Thomson was chosen, knowing one would be necessary regardless of which vendor it selected. Merrill also wanted to keep control of the IF in-house. "We weren't about to take all our mainframe systems and turn them



## AN OPPOSING VIEW OF BUILD VERSUS BUY

UBS Financial Services keeps its new workstation in-house

Merrill Lynch is not the only company revamping its financial advisers' desktops. UBS Financial Services now is rolling out its new platform, ConsultWorks 2. Like Merrill's, UBS's system is Web-based and integrated so that advisers can navigate between some 125 applications. Like Merrill's, UBS's legacy platform was not well-integrated. Unlike Merrill, however, UBS is building its new system in-house.

"When we looked at what we could buy, we saw many good point solutions, [but] we didn't see anything that met two criteria: a high degree of integration and a degree of nomadic access from anywhere in the world," says CIO Scott Abbey. He believed that his IT department's experience building and working with the previous version of ConsultWorks made it the best choice to build the new desktop. And a UBS spokesman adds the company "spent significantly less" than UBS's rivals have cited.

After a pilot test last year, UBS rolled out the workstation to its more than 8,000 financial advisers this spring. This month marks the halfway point of the rollout, which should be complete by year's end. Though UBS has publicly announced it's using Reuters Plus Web as its market data application, it won't reveal other vendors involved in the project.

-T.D.

over to a vendor and have them figure out how to deliver that data to the vendor applications," says Greenberg.

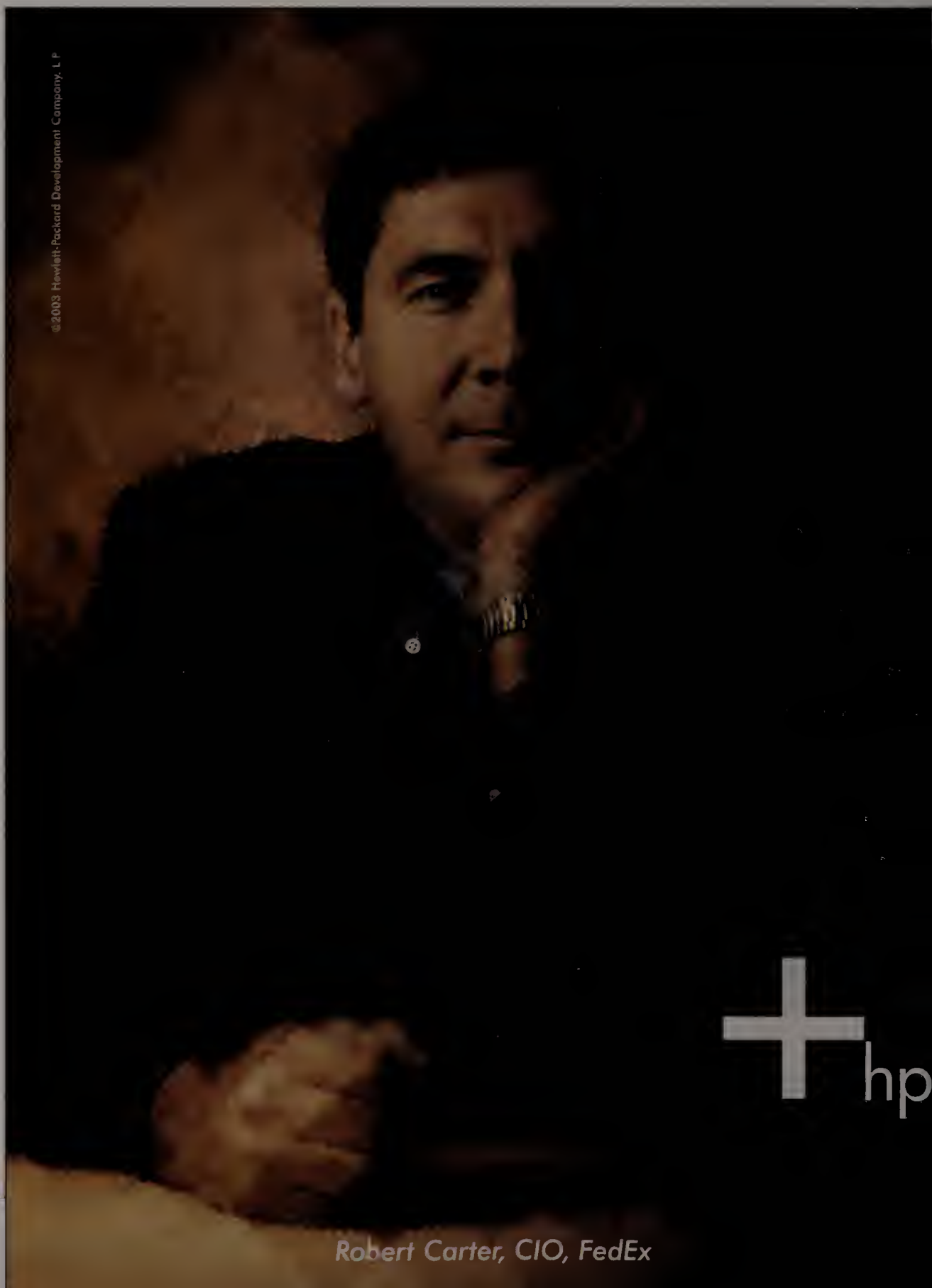
The workstation connects 18 legacy back ends (running applications such as HR, various accounting systems and the TGA database) to the new platform. The IF is Web services-based, using Microsoft's .Net, and Vielehr asserts that it's one of the largest Web services implementations ever. "The volume of data that will blow through is substantial," he says. Vielehr allows that going with Web services was a

### Share Your Opinion

**Would outsourcing under a general manager work for you?** Tell us what you think of this or other hybrid outsourcing models you may have tried. Go to the **ADD A COMMENT** box at the bottom of the online version of this story, which you can find at [www.cio.com/archive/091503](http://www.cio.com/archive/091503).

**CIO.COM**

big decision, but not that hard. The TGA platform, which involved lots of point-to-point connections, was hard to scale and had very little standardization. Using Web



Robert Carter, CIO, FedEx

services to build the middle tier allowed the back end to integrate smoothly with the desktop and also made it easier to integrate the network, hardware and applications. "If we had done this from a proprietary perspective, we would have perpetuated a lot of the problems we had in the past," says Vielehr.

The development schedule has been nothing short of hellacious. After the contract was signed in December 2002, the project team was given six months to bring the new platform to life in order to get the FAs out from

under the clunky TGA platform as soon as possible. (The compressed schedule also saved Merrill money.) Teams formed in January, then Greenberg—who refers to himself as the hired gun—was brought over from Merrill's investment management group to manage the project. Greenberg also serves as the Thomson relationship manager, a two-headed role that basically means he eats, breathes and dreams about the new workstation. His umbilical cord to the project extends to happy hour: Greenberg recently took some of his team out for margaritas, but, while sitting with his

# Merrill

sees a competitive edge by integrating many data sources (up to 18 screens worth) into one client view.

cohorts at the table, had to phone in from the bar for a conference call.

## Ramping Up to the Rollout

Throughout spring and early summer of 2003, the integration of the workstation and the online sites proceeded. Piloting in Merrill's Hopewell, N.J., campus began in August, to be followed by select branches in October. A full production rollout will begin shortly after piloting is completed.

The hope is that the new workstations will make life easier for the company's 14,000 FAs. The new Siebel CRM system, the client management part of the platform that sits on one of the station's two screens, provides a 360-degree financial view of clients: their assets, performance profiles and transaction history. Unlike the TGA system, where client or prospect information continually needed to be rekeyed into different applications, the new system is supposed to have information pre-fill into all forms. Also, where previously an FA might have needed to bounce between as many as 18 screens to get information from TGA, now client information integrates seamlessly among applications. So, for example, an FA could instantly create a client list for all those holding DaimlerChrysler stock and alert them

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Byron Vielehr, CTO of Merrill's Global Private Client Group, says service-level agreements monitor everything from networks to user experiences.

his job. Another key feature of the platform is that the new online sites are fully integrated with the FAs' desktops and the FAs can mouse between the Siebel screen and Thomson screen. "You talk to any adviser at any firm and they'll tell you that the lack of integration between applications is their single biggest impediment to efficient practice management," says Jaime Punishill, a senior analyst who follows wealth management at Forrester Research.

Merrill hopes that FAs will be able to compete more effectively for high-net-worth customers (see "The Quest for the High-Margin Customer," Page 52)—and maintain existing ones—by giving FAs better, faster information, while giving clients the same, real-time view that their FAs see on their desktops. Theoretically, the FAs will also be able to spend more time with these customers, and not just because of the new platform—all calls from less profitable clients (those with less than \$100,000 in assets) will be routed elsewhere. As happy as the bigwigs at the GPC are for their FAs, they're downright giddy at the prospect of the money they'll save with the new system.

when the share price dropped or rose a predetermined amount.

While client information fills the first screen, the other runs Thomson's Thomson

One application. That app contains market data, news feeds, portfolio management tools and calculators, providing the information and functionality an FA needs to do

## SUCCESSFUL PARTNERING

Tips from the top on the keys to working with your vendor



**James Gorman**, executive VP, Merrill Lynch's Global Private Client Group

- > Think about negotiations as a way to learn more about your company's needs and your partner's capabilities.
- > Make it very clear to your partner that negotiations are not the crux of the relationship; they're just the first step in the formation of a long-term arrangement.
- > Ensure that the partnership is not too one-sided, that each partner has as much at stake as the other.



**Byron Vielehr**, cohead and CTO, Merrill Lynch's Global Private Client Group

- > Get executive sponsorship from the business.
- > Take a pragmatic view of the contract you strike. Understand that you can't cover all the situations you're going to face.
- > Make sure you get the organization behind the project. You don't want people poisoning the well from within.
- > Acknowledge problems and successes as they happen.

# How Content Management Technologies Can Deliver Bottom-Line Results

LEGATO solutions



access



availability



protection

## Reduce Costs, Improve Productivity and Increase Efficiency Through Enterprise Content Management

Content management technologies have moved beyond their traditional mission to capture and organize data for better access and retrieval. The real benefits of today's content management strategies are reduced costs, improved productivity and collaborative business processes. With the ever-present mandate to improve ROI and lower Total Cost of Ownership (TCO) for IT investments, content management is a win/win for both IT and your organization.

Consider some of your own core business functions such as accounting, human resources, and customer support — chances are, you are still using a combination of paper documents, email, manual searches, and other time-intensive processes. These inefficiencies result in overhead expenses, rework and mistakes — but the good news is that today's content management technologies can make significant operational improvements and provide tangible, bottom-line results.

### Automated Processes Integral to Business Management

Large or small, public or private, anywhere in the world... virtually all organizations are driven on some level by the day-to-day processes that support business operations. Today's employees know that their organization depends on their ability to collect, manage and deliver the right information to the right person at the right time. That's why many organizations are implementing automated, integrated content management solutions. With integrated content management, you can achieve gains in three critical areas:

- **Productivity** — Any business function can become more efficient when the data it needs to perform that function is readily accessible and usable. For example, with integrated content management, an accounting staff can better track payables and speed up payment to vendors — ultimately improving the company's credit rating and lowering the overall cost of credit.
- **Efficiency** — With integrated content management, your employees will be able to seamlessly access, retrieve and process electronic data, versus spending time on manual searches or other time-consuming, outdated processes.
- **Compliance** — In most organizations, certain types of data must be retained for many years for auditing and tax purposes. Conversion of paper documents to electronic formats significantly reduces the amount of storage space required for documents — therefore reducing or eliminating your costs for off-site archival storage. And, you can readily access the documents you need in the event of an audit or other enforcement action, speeding resolution.

### Selecting a Content Management Solution for Your Accounting Function

To understand the benefits that can accrue from an integrated content management solution, consider the accounts payables (AP) function — a universal business operation.

### *An integrated content management solution for accounting should include:*

- **Electronic repository of all accounting data, with Web-based access to that data**
- **Workflow, or business process capabilities to streamline operations**
- **Integration with other software applications**
- **Secure, accessible storage of electronic data for cost-effective storage and compliance requirements**



An integrated content management solution for AP should include five core capabilities:

- **An electronic repository of all source documents** – Your organization will speed up processing, minimize manual searches and create a valuable repository of data by converting paper documents into an electronic format. This can be done via scanning technologies that should be part of your overall content management solution. Scanning also minimizes the space and overhead associated with files and boxes of paper documents.
- **Browser-based access to accounting data** – A Web interface to your electronic data means your staff can process documents no matter where the data or the staff person resides. As a result, your staff can be productive, regardless of location, time zones and other constraints associated with traditional accounting processes. The AP operations can be done with keystrokes and mouse clicks, not manual searches, faxes, and multiple hardcopies.
- **Workflow, or business process automation capabilities** – Automating specific processes in accordance with your organization's business rules can dramatically improve efficiency. Once a particular step in a process is completed, say matching an invoice to the purchase order in the accounts payables process, the document(s) are automatically forwarded to the appropriate person for the next step in the process.
- **Integration with existing accounting applications** – The content management solution you select needs to feature open architecture and software development kits to allow for easy integration with your existing applications. This type of integration can enable users to access documents directly from within the accounting application.
- **Data protection** – Finally, no integrated content management solution would be complete without secure, accessible storage and data protection. Look for a data storage and management component that is flexible enough to let you choose the storage media that is best for your organization – including optical, WORM, Tape, DVD and CD, as well as newer disk-based options.

In addition to the above capabilities, be sure to select a content management solution that is backed by a company with the experience, resources and support that you need.

### ***The benefits of applying content management technologies to your organization include:***

- **Reduced costs**
- **Improved productivity through fewer manual processes**
- **More efficient use of document and other content that drives day-to-day operations**

### **LEGATO's ApplicationXtender® Suite, Used to Streamline Processes in Thousands of Organizations Worldwide**

As you evaluate integrated content management solutions for your organization, be sure to consider LEGATO Systems, Inc. LEGATO Systems is a global provider of data management solutions that drive operational efficiency and business continuity. Our integrated, automated content management solutions have been implemented in thousands of organizations around the world in many industries – including finance, healthcare, telecommunications, manufacturing and education.

ApplicationXtender®, the core of LEGATO's content management solution, takes a unified approach to data collection, generation, management and delivery. It enables access through a universal interface by intelligently indexing, organizing and storing data from across the enterprise. Other key components of LEGATO's content suite include WebXtender®, ERMXtender® and WorkflowXtender®.

The newest addition to the ApplicationXtender family is WorkflowXtender® for AP. Designed to be largely an "off the shelf" application, WorkflowXtender for AP helps maximize the efficiency and productivity of the accounting process. It's easy to install and configure and provides a complete solution that captures invoices and manages the review and approval activities through to payment. LEGATO also offers customized workflow solutions for accounts payables.

All Xtender products are built on a solid foundation that includes comprehensive data storage management through LEGATO's award-winning DiskXtender® product, which provides virtually infinite storage capacity for content. In addition, DiskXtender allows organizations to choose the storage media that best meets their access, retention and cost requirements, including NAS, Optical, WORM, Tape, DVD and CD, as well as the latest ATA disk-based devices.

The ApplicationXtender suite provides comprehensive capture capabilities for your enterprise data, including imaging, electronic file support, faxes and computer output reports for both traditional COLD (text-based reports) as well as advanced printstreams (AFP, Metacode, PCL and PDF). The suite will also capture index information from the various formats, and store the indexes in a centrally available repository – which also creates a virtual repository for all content.

ApplicationXtender supports a comprehensive content management strategy, and can help your organization achieve significant cost savings and productivity gains for an outstanding ROI.

**For more information about ApplicationXtender for Accounting and LEGATO Systems, visit [www.legato.com/solutions/accounting](http://www.legato.com/solutions/accounting) or call 888-853-4286.**



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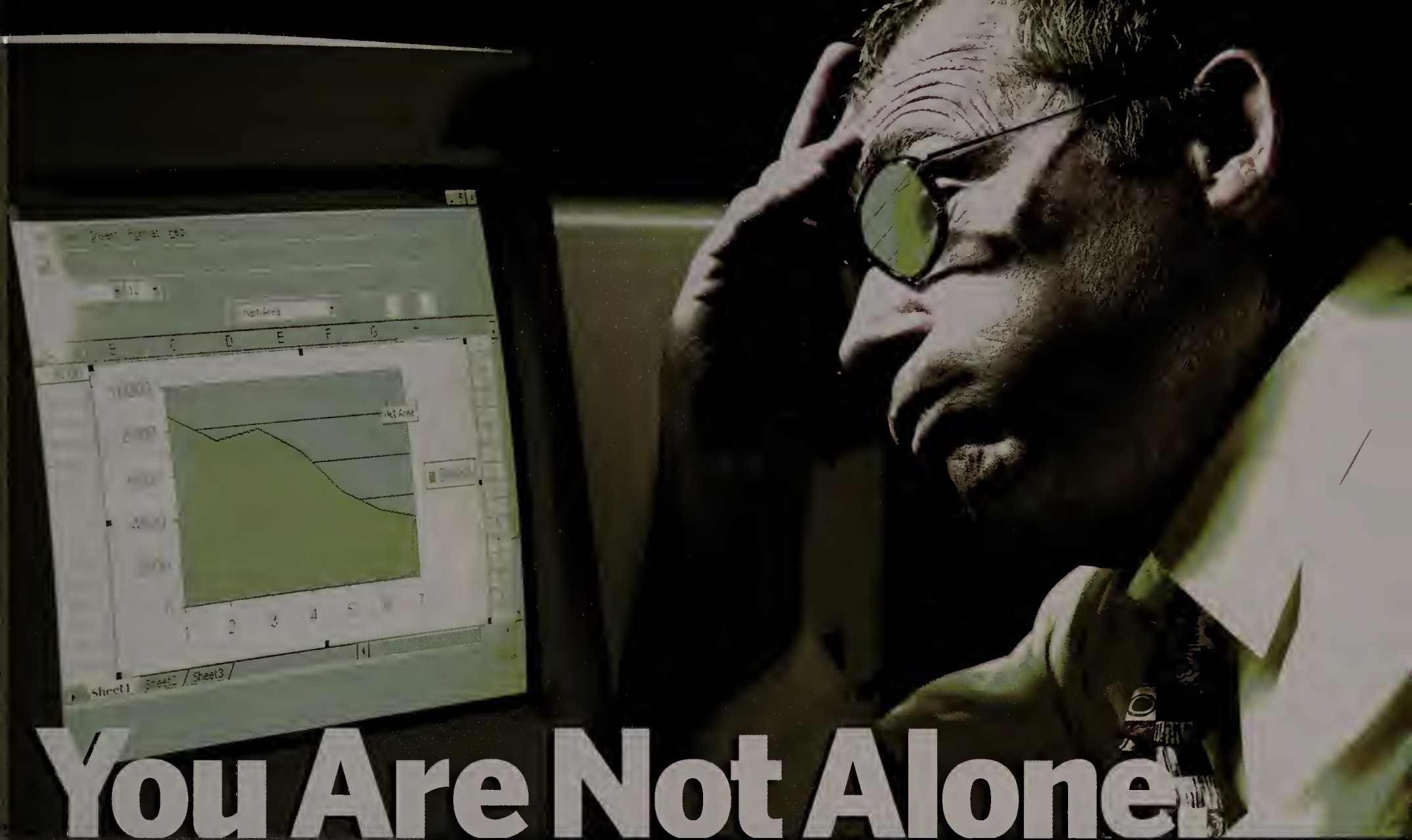
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# Merrill's outsourcing arrangement is designed to make Thomson Financial and other vendors share the monetary risks and rewards of the workstation project.

According to Vielehr, annual operating cost savings will be in the tens of millions.

## Ahead of the Competition, but for How Long?

It remains to be seen whether Merrill's billion-dollar investment will produce the competitive advantage it's hoping for. Unsurprisingly, its executives predict that it will. "[The plat-

form] raises the cost of entry of being a financial advisory firm. There's increasing consolidation in the industry because the cost of equipping financial advisers is prohibitively expensive for all but a handful of firms," says the GPC's Gorman.

"I think we'll be a couple of years ahead of most competitors," says Vielehr. "Most [other] players have point solutions that

operate in silos; none are as integrated." And that integration, Vielehr believes, comes with a side benefit: It will help sell new recruits on working at Merrill.

Some analysts are reserving judgment. "Merrill typically does this stuff earlier than others, but it's a short window [of advantage]," says Forrester's Punishill. "We're not talking about new analytics or different stuff



Lou Eccleston, president of Thomson Financial's banking and brokerage group, says weekly updates about Merrill Lynch's workstation platform involve both companies' CEOs.

than what others are doing. It's a better way of putting something together. If it does a better job, FAs are more productive. If they're more productive, will they generate more business or play more golf?"

Punishill also points out that if the workstation succeeds, Thomson certainly will market it to the rest of the industry, thereby ensuring that Merrill's putative competitive advantage will immediately begin to spring leaks.

For now Merrill is hoping to improve the lives of its 14,000 FAs by giving them a speedy, more intuitive, hassle-free desktop. And, with Thomson riding shotgun on the project, and all the subcontractors in the backseat, it's making sure its vendor partners feel—in their pocketbooks—as much responsibility for the success of the platform as it does. **CIO**

You can reach Senior Editor Todd Datz via e-mail at [tdatz@cio.com](mailto:tdatz@cio.com).

A black and white photograph of two men in business suits sitting in the back of a car. They are both laughing heartily, looking towards the right. The man on the left is wearing a dark suit and a striped tie. The man on the right is wearing a light-colored suit and a patterned tie. The background shows a city street with buildings.

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# WHAT THEY'RE SAYING ABOUT

IT staffers have a clear message for their bosses: CIOs better take a break from their budgets and their executive meetings and pay a lot more attention to staff morale

BY LAUREN GIBBONS PAUL

# YOU

# WHAT YOU NEED TO WORK ON

400 IT professionals below the CIO level responded to our online survey in May 2003, which asked visitors to CIO.com and members of TopCoder, a programmer's website, to critique their CIOs. The staffers say CIOs have a lot of professional development to do.

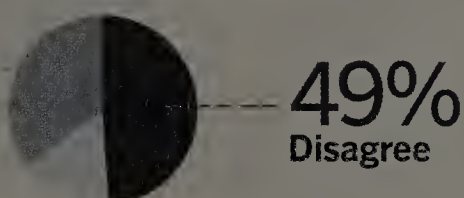
## My CIO...

■ Disagree ■ Agree ■ Neither agree nor disagree

...promotes staff training



...sets a good example



...has a good understanding of IT project requirements in terms of staffing and resources



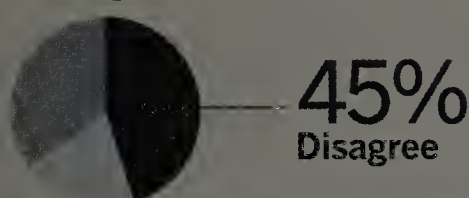
...fosters a team environment/atmosphere



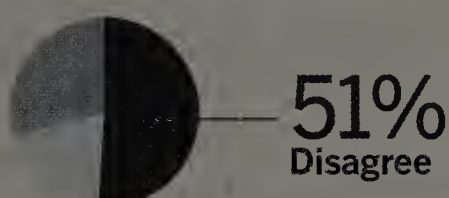
...is a positive influence in my department



...effectively communicates changes within IT



...uses praise and constructive feedback to motivate



...delegates effectively and provides the necessary guidance and follow-up when delegating



CIO RESEARCH

Not long ago, Joanne Birkin got an e-mail from her boss, the CIO of a large Midwestern food company, asking for her feedback on his performance. The CIO asked three of his direct reports: What should I stop doing? What should I start doing? What should I continue?

Sounds like a constructive exercise. But not in this case. Birkin huddled with her colleagues, and they decided to limit their "stops" and "starts" to three apiece. "Any more than three would be too discouraging for him," says Birkin, director of the project management office. (Her name was changed at her request.) On the list: Stop micromanaging experienced team members. Start developing a systems road map for the frequent mergers and acquisitions. There were no "continues."

The employees e-mailed their feedback to the CIO. And never heard another word about it. >>

### Reader ROI

- How IT professionals view CIOs as leaders and managers
- How CIOs' IT backgrounds relate to their management skills
- Tips for becoming a better manager and boosting sagging morale



If you're tempted to dismiss this CIO as a tone-deaf jerk from fly-over country, consider this: In a CIO survey done in May with TopCoder, a company that hosts a Web-based community of IT professionals, 400 IT professionals almost universally gave their head honchos a thumbs-down. Among the findings:

» 45 percent don't believe their CIOs communicate changes in IT well enough.

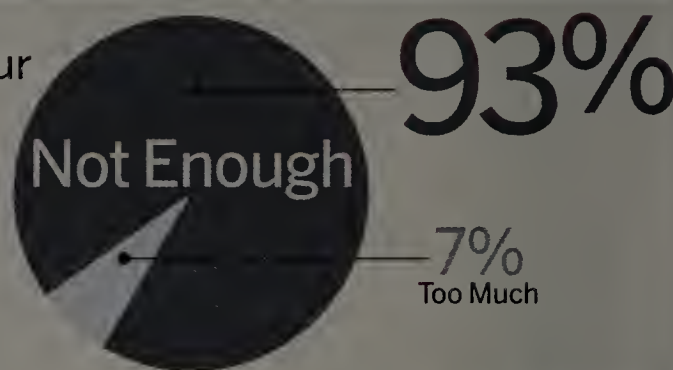
» 52 percent said their CIOs don't foster a team environment.

» A whopping 93 percent said their CIOs don't spend enough time developing future IT leaders.

Those are some of the lowlights (for survey results, see "What You Need to Work On," Page 61). What the results indicate—and interviews with IT staffers and experts reinforce—is that CIOs need to take the time to improve their management skills and cultivate their employees' skills if they want to retain IT talent and see their organizations succeed.

## LEADERSHIP TRAINING WANTED

How much time does your CIO spend developing leadership within the IT department?



CIO RESEARCH

likely to participate. But to a person, the 10 IT staffers interviewed for this story were professional and measured in their comments. Most were highly frustrated at what they saw as shortcomings in their CIOs.

So, what's going on here?

For one thing, despite all the emphasis on business-savvy CIOs, many still come up through the technical ranks and are promoted into the role. Nearly 70 percent of sur-

vey participants said their CIOs' primary background was in IT. Only a third said the bulk of their CIOs' experience was in business. Those results coincide with a survey of 539 IT executives CIO conducted for the "State of the CIO" issue: 82 percent identified IT jobs as influential in their careers. Consulting was a distant second. (For more survey results, see [www.cio.com/printlinks](http://www.cio.com/printlinks).)

That means that when IT leaders reach the CIO level, they probably have a limited background in management. And it's not as if management skills are magically transmitted upon ascension to the CIO seat. "I see it all the time. The most technically proficient person gets promoted, but management is the most important part of the job," says Beverly Lieberman, president of executive search firm Halbrecht Lieberman Associates.

Bill Howard, senior vice president and CIO at \$11.4 billion Sun Microsystems, isn't surprised by the survey results. Most CIOs are much more comfortable with technology than management, he says. "By and large, IT people are a type of engineer. They're not rewarded for people-oriented things until

Effective CIOs **cultivate** a culture where they know what employees are thinking (good and bad). They **act as advocates** for hardworking staff.

In this article, we explore some reasons for the low scores and what you can do about them (see "Management To-Do List," Page 64, and "Morale-Boosting Moves," Page 68). Another important story in this issue, "How to Launch a Leader" (Page 70), explains the benefits of developing CIOs of the future now and gives ideas for making it happen.

## SAVVY MANAGERS SOUGHT

CONDUCTED ONLINE, our unscientific survey attracted a self-selected group of respondents. Disgruntled individuals are more

likely to participate. But to a person, the 10 IT staffers interviewed for this story were professional and measured in their comments. Most were highly frustrated at what they saw as shortcomings in their CIOs.

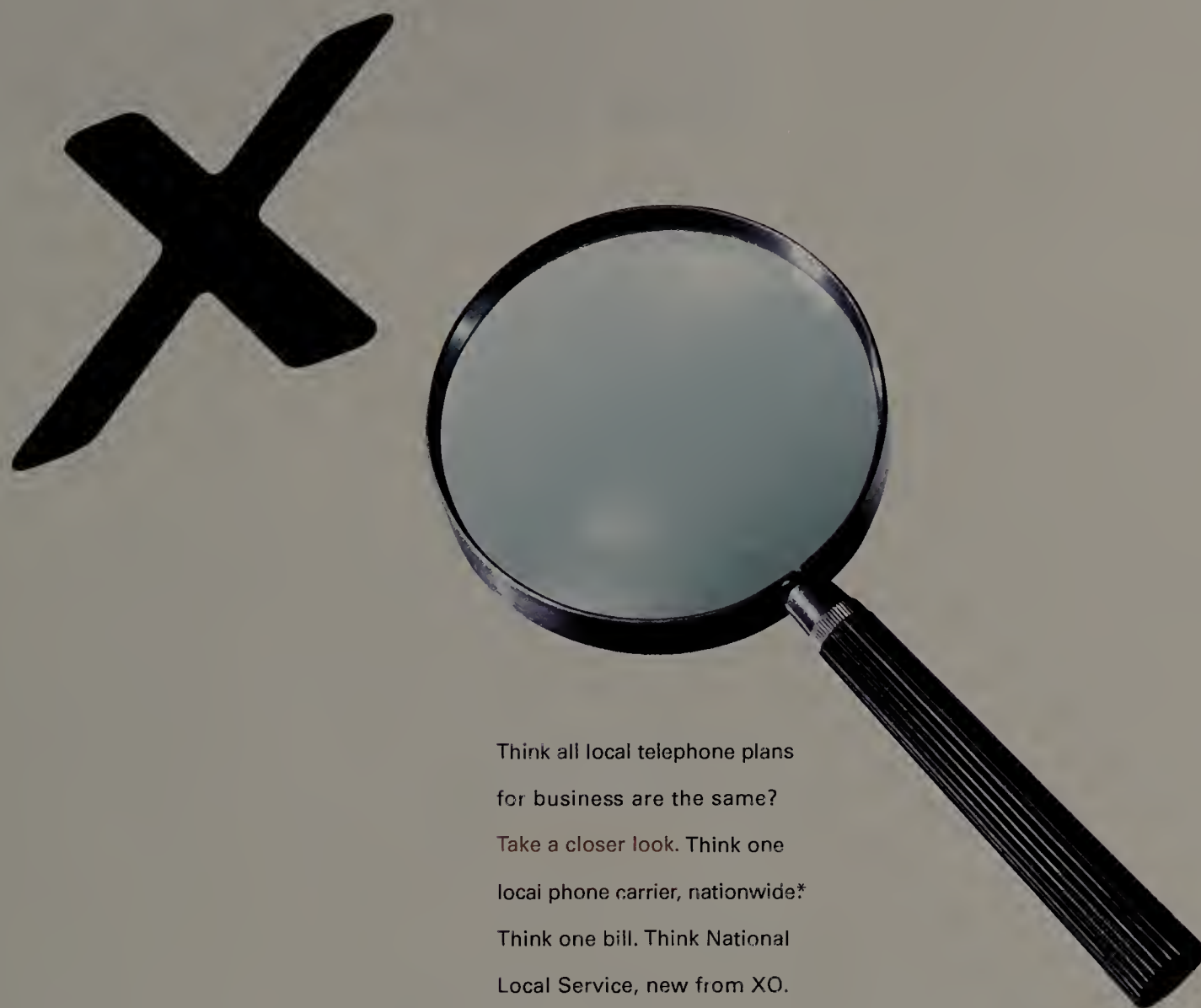
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they reach a certain level."

Howard worked up through the IT ranks himself. But he counts himself among the lucky few who received lots of training and professional development along the way. He started his career in the Navy and also worked at IBM—and he was groomed to be an effective manager at both places.

Cecil Smith, CIO at \$15.7 billion Duke Energy, started his career in IT after earning a degree in applied mathematics. Smith went on to earn an MBA and got further management training through the Young Executives Institute at the University of North Carolina. But CIOs such as Howard and Smith are in the minority.



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"In IT, you tend to value the person who doesn't talk much, stays in their cubicle and keeps their head down. One day you make that person a project manager, and then you can't understand why all they want to do is stay in their cubicle and not talk to anyone," says Jerry Gregoire, a CIO Advisory Board member who served as CIO at PepsiCo and Dell.

## THE ECONOMY IS NOT AN EXCUSE

**THIS EXPERIENCE GAP** is one reason scores in this survey sag, these practitioners agree. There is debate, however, about whether other executives—CEO, COO and the like—would get similar report cards in a management skills-style survey. Lieberman believes that given this year's cloudy economy, the climate of layoffs and poor morale in corporate America, staffers would have equally bad feedback for other executives such as the CFO and COO. But Sun's Howard is not convinced. "Other C-level executives have broader exposure to different facets of the business and its people. Technology people have a good understanding of the process, not the people issues," he says. Removing the effects of the dismal economy on staffers' morale, Howard believes other CXOs would fare better than their technical brothers.

A good economy buoys everyone, notes Chuck Lybrook, executive director of the Information Management Forum (and another CIO Advisory Board member). Lybrook says if CIOs were not good managers in the go-go days, it didn't hurt morale much. Staffers knew they could get an exciting new job (with commensurate salary) very quickly. Today, IT staffers are likely to feel stuck. And bad attitudes can fester.

"We're into the third year of no budget," says Maria Schafer, program director for Meta Group. Layoffs are ubiquitous. Programming is moving offshore. Without money for bonuses or even cost-of-living increases for those who remain, many CIOs are pulling back. They're holding fewer

## MANAGEMENT TO-DO LIST

Here are some action items for CIOs—taken from experts, IT staffers and CIOs themselves—to make you a better manager

**1. Get in front of your staff on a regular basis.** Ask for questions and concerns. Solicit ideas. Then listen. And respond with the truth.

**2. Get to know your direct reports.** Find out what makes them successful as individuals.

**3. Put together a team to collect employee ideas** and input on a monthly or regular basis. Employees resent not being able to contribute. Install a suggestion box if you don't already have one.

**4. Invest in professional development for your staff.** "You absolutely must preserve some of your training money. You have to send them to training at least twice a year or they'll leave the first chance they get," says Beverly Lieberman, president of executive search firm Halbrecht Lieberman Associates. But don't dole out training opportunities to only the choice few, as sometimes happens when money is tight. That will just create worse morale among the have-nots.

**5. Remove the obstacles to getting training.** With people spread so thin, it can be difficult, if not impossible, for them to take advantage of training. Use creative scheduling or get in some temporary help to ensure people can take courses.

**6. Have senior management speak to your group** about the business and its goals. "Even if there's nothing really great to say, you have to tell them how you're trying to keep the ship afloat," says Lieberman. Put a cap on negative watercooler chat by formalizing the discussion.

**7. Enlist help from human resources.** Spend time with a senior HR person and brainstorm ways to bolster morale.

**8. Go for executive training.** This may be impractical with both time and money tight. But if there's any way you can do it, take an executive development course at a premier institution such as Harvard, MIT or Stanford.

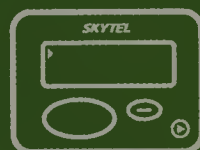
**9. Get yourself a coach.** Ask an HR professional to help you find a personal coach who can help boost morale. If the company can't or won't sponsor coaching services, pay for it yourself.

**10. Get communication help.** Cecil Smith, CIO of Duke Energy, has a dedicated communication professional, Andy Thompson, to help him disseminate information both inside and outside his organization. Smith was surprised to hear there was an IT communication role when he first joined Duke in 1995. Now he finds Thompson indispensable. "He's been at my side since then," says Smith.

—L.G.P.



***"Jack: Have everyone bring their money.  
We're on for the poker game tonight."***



***"West Coast Sales Team: Proceed with orders –  
inventory has been restocked."***

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# CIOs must **monitor** staff **morale** when budgets are tight. Get to know team members. Save some money for staff training. And call HR for help.

meetings, asking fewer questions, hiding behind closed doors or on the road, working from home. But withdrawal is exactly the wrong impulse.

CIOs worry they'll get hammered if they sit down for a heart-to-heart dialogue with employees, Schafer says. But attempting to stay out of the fray is a major mistake. "You can't help a situation by not knowing what's going on" with the rank and file, she adds.

Staffers pick up signals by a leader's action—or lack of action. Acting indifferently about what employees are doing rattles them.

"It's very hard for me to know exactly what [the CIO] is doing. He doesn't tell our users what we're doing or why we're doing it. He actually never shows any interest at all in what we're doing. There's no questions, no interaction," says a senior systems engineer for a large entertainment company.

The systems engineer (who asked that he and his company not be quoted by name) reports several levels down from the CIO. He says that staff reductions sting, and the knowledge that executives including the CIO earn million-dollar paychecks also hurts. But what bothers him the most is the perception that no one notices what he's doing. "I care about quality, and I like my job," he says. People just want to feel like someone else has a stake in their work, he adds.

All told, IT staffers shared three other hot points of discontent.

» **A lack of leadership from the CIO.** In interviews, many say their leaders are poor advocates for IT to the rest of the business. "He never sticks up for us or educates the business leaders on the lack of resources or the things we're doing right," says an information center consultant for a municipality.

» **Infrequent feedback.** Many IT professionals report they receive no feedback, positive or negative, outside their yearly reviews.

"I got great feedback from the head of the business unit," says John Bartz, now an Atlanta-based independent consultant who was laid off by a large IT staffing company last winter. "That's who I really considered my boss, though I technically reported to the CIO."

» **Few training opportunities.** At the systems engineer's entertainment company, a training program exists on paper, but there's no way to use it.

"Having training available was supposed to be a way to spark interest and learning, to keep up morale," he says. But with four technicians supporting 1,200 users, no one can get enough coverage to take advantage of the program.

## REALITY CHECK

You know how you spend your time. But do you know how **your staff** thinks you spend your time?

You say you spend as much time with your IT staff

IT Staff 24%

as with your department heads

Department Heads 29%

Your staff says you spend about three times as much time

IT Staff 15%

with with your department heads

Department Heads 41%

SOURCES: 2003 "State of the CIO" survey of 539 IT executives; CIO survey of 400 IT professionals done in May 2003 with TopCoder

## KEEPING AN EAR TO THE GROUND

CIOs WHO DO HELP information flow both up and down the corporate ladder are treasured by their employees.

Stan Land is one of those employees. Land, vice president of enterprise applications for Duke Energy, says his CIO, Cecil Smith, is "about as good a communicator as I've seen" in his decades in IT. Smith, Land says, "ensures that our objectives and strategies are documented across the enterprise. I understand what mine are. I understand what my peers' objectives are. We communicate quarterly where we are against those."

Land, who is in contact with Smith at least once a day, says Smith uses e-mail and telephone calls as well as scheduled and impromptu meetings to take the temperature of his 2,000-person organization. He walks around a lot. "If there's someone on my staff who knows something, [Smith] doesn't go through me. He picks up the phone and calls them," Land says. "I do not have any doubt in my mind where I stand with [Smith] or my management. If he has any questions as to why I made a certain decision, he asks immediately. Same for me."

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## MORALE-BOOSTING MOVES

Our survey of IT professionals shows that low morale is widespread. Improving employee spirits should be a priority. Here's where you can start.

**Spend a few dollars** on a team-building exercise. It doesn't have to be coal-walking or a week at a resort. Have a one-day session led by a facilitator.

**Seek advice from everyone**—at all levels of the organization—as to how to improve their work environment. Put a task team in place and follow up with in-person meetings no less than once a month. Even if you're in a funk yourself, take a deep breath and just do it.

**Show employees how and why they matter.** "You have to communicate that what they're doing is contributing to the betterment of the company. Let people know times are tough but you do appreciate their efforts," says Beverly Lieberman, president of executive search firm Halbrecht Lieberman Associates. This is the time for town hall meetings, brown-bag lunches, morning doughnuts, evening pizzas, and formal and informal pats on the back.

**Talk about the extra burdens** the economy has placed on them. Ask what would help them balance work and family demands. Their answers might surprise you. Time, not money, is a more precious resource for many people, says Maria Schafer, program director for Meta Group.

**Arrange to have senior managers visit** when staff members are working extra hours. It means a lot to IT people to see that someone senior knows and appreciates what they're doing.

**Be honest and clear** about the tough things. If more layoffs are a possibility, say so. Don't make your staff read about looming cuts in *The Wall Street Journal*. For those who remain, let them know exactly what is expected of them. Offer benefits such as comp time to assuage hard feelings and frayed nerves.

**Don't let community involvement slide.** Duke Energy is extensively involved in its local schools, helping high school students learn key skills in a program called Tech Connect and getting computer access for economically disadvantaged children in a program called Neighborhood Connection. People find it rewarding in tough economic times to work on these programs, says Cecil Smith, CIO of Duke Energy.

**Let senior staff take a hit.** At Duke Energy, raises and bonuses for the most senior managers have been frozen since last year, while more junior people are still eligible to receive them.

—L.G.P.

### Learn More About the Survey

To get all the gory details of **WHAT DO YOU THINK OF YOUR CIO?** go to [www2.cio.com/research](http://www2.cio.com/research).

**CIO.COM**

For his part, Smith characterizes his management style as simple common sense. "It's as simple as showing up, walking around, identifying what's going on," Smith says. Duke occupies four buildings in its headquarters city of Charlotte, N.C. Smith makes sure he's in each building on a weekly basis. He answers his phone and his e-mail. "It's those kinds of things that keep you in the loop. I'm not 10 miles away or on the road all the time. I do better when I know what's going on and I know what people are thinking and feeling—good or bad. That's the culture we have here," he says.

Though we're now in the mother of all employers' markets when it comes to IT staffing, CIOs cannot overlook the need to tend to staff morale issues for long. The economy will pick up eventually. "The demand for IT people will be one of the first areas to pick up. We'll be right back where we were. Companies have not put holistic skills development initiatives in place. Everyone is so focused on cutting costs," says Schafer of Meta.

Birkin from the Midwestern food company speaks for many when she voices the frustration and even pain her CIO has caused. The company has been working on a complex SAP R/3 implementation during the past few years. The IT group has risen to the challenge, delivering solid applications on deadline nearly 100 percent of the time.

"Performing at these levels—and with less staff—we really need a relationship-builder who can express what we're doing. But he's not a good advocate," she says sadly of her CIO. "He's very apologetic and continually tries to justify IT's existence. But we've done a good job." **CIO**

Lauren Gibbons Paul ([laurenpaul@attbi.com](mailto:laurenpaul@attbi.com)) is a freelance writer. Send your thoughts about this article to [letters@cio.com](mailto:letters@cio.com).



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# HOW TO LAUNCH

Irene Heege, head of work-site application services at ING U.S. Financial Services, can talk as comfortably about leadership and management as she can about technology. Leadership skills training is both a corporate priority at ING and a personal priority for Paul Donovan, CIO of ING U.S.



# ALFADER

Instill leadership skills and business sense in your IT employees—and watch them soar

BY TODD DATZ

## AT ING U.S. FINANCIAL SERVICES, IRENE HEEGE SERVES SIDE BY SIDE WITH FOUR BUSINESS

leaders on a team that guides one of the company's five major business lines. Heege represents IT in this group, but she's not, as you might expect, the CIO. She is head of work-site application services—a techie. Heege has the credibility, the skills and the authority to help make million-dollar decisions because of her on-the-job experience and ING's emphasis on leadership development.

An example of that leadership development focus is ING's Talent Review Initiative. Participants—generally the top 2 percent of the IT staff in skill levels and accomplishment—receive extra training, both onsite and offsite, and become candidates for ING's business school program in Amsterdam, the Netherlands (the home of parent company ING Group). There, employees might take courses in banking, insurance and leadership, get coached in management skills and be assigned mentors. The program is meant to serve ultimately as a stepping-stone to senior management.

Intensive leadership training like this is the exception rather than the rule among corporate IT departments. Identifying can-

didates, creating leadership programs and administering them was a daunting challenge during the hectic days of rapid growth, and still is in today's overworked and undermanned environment. But companies as diverse as ING, trucking giant Schneider National and IT services company Unisys recognize that growing and molding future IT executives is critical to the long-term success of their organizations.

These companies teach their IT staffs communication skills, help them understand the business and instill a culture grounded in values. They identify high-potential people early in their careers and put them on separate development tracks, making sure they build leadership and people management skills through training, coaching, mentoring and working with business peers (skills far different from those they'll acquire in the latest SQL Server or XML-coding course). And most important, their CIOs have made a commitment to developing and nurturing their successors.

ING's Talent Review Initiative was created to fill a gap, says CIO and Executive Vice

### Reader ROI

- Why companies tend to skimp on leadership training for IT staff
- What a few pioneering CIOs have done to encourage leadership skills development
- What IT staffers have learned from their leadership training



## IT Staff Development

President Paul Donovan—one that he believes is still prevalent in the world of IT. “Identifying the high-potential people and those that will make great managers and leaders is not something IT has done a good job at,” he says. “People are picked without a lot of training to fill a void. You give them a shot; what you haven’t done is prepared them for this new role. They’ve gone from writing a program or fixing a problem [to managing people], and it’s a very different role.”

Randy Mott, the CIO at Dell, attributes part of the problem to the fact that IT is still toddling around in diapers, relatively speaking. “The issue starts with how companies perceive their IT organizations,” he says. “With the function being relatively young as an industry, most companies view the CIO as the single source for decision making and strategy development, so the second tier of IT leadership doesn’t always get the exposure necessary to develop their leadership skills.”

The end result for many IT departments: managerial ranks chock-full of people who are highly qualified technology specialists but underqualified motivators and leaders of people. IT staff notice this and resent it, according to a recent *CIO* survey. A whopping 93 percent said their CIOs don’t spend enough time developing future IT leaders. (For more about the survey and tips for managing staff, see “What They’re Saying About You,” Page 60.)

In a 10-person IT department, that may not matter. In a 100- or 1,000-person staff, a lack of leaders can put a major hurt on efforts to weave technology into the business. Today, IT managers need to work side by side with their business counterparts and be able to communicate in the language of ROI and customer satisfaction, not just the techno-speak flung around in the server room. They must understand underlying business processes and be able to suggest improvements. They need to help make the business cases for new IT projects and convince executives of their merits.

Here’s another reason to make sure you’re growing future leaders: Though the



**One factor in the lack of leadership training for IT staff, says Dell CIO Randy Mott, is that most companies don’t view IT staffers other than the CIO as being contributors to the overall organizational strategy.**

staffing crunch of the late ’90s may seem as distant as the dream of bug-free software, at some point the economy is going to leave its moribund state and begin to pick up steam. As soon as that happens, your most valuable employees will begin sniffing the air for new opportunities. To keep your people happy—and in their seats—you must allow the future managers, directors and CIOs to gain the same core leadership skills that paved the way for your entrance into the boardroom.

### GET ON THE LEADERSHIP TRACK

At Schneider National, home of the familiar fleet of vivid orange 18-wheelers that traverse America’s highways daily, the 425-person IT department is divided into two tracks. One is

technical: Employees choosing this career path take on roles and responsibilities that require technical competency in areas such as operating systems and product development. Those folks—the hard-core techies who find pleasure (and pain) in the nodes, nooks and crannies of networks—manage machines but, by choice, no people. The other track is managerial: IT staffers who choose this path desire a career that, in addition to developing their technology chops, gives them the opportunity to manage others. “We allow people to see where they want to go,” says CIO Steve Matheys. “If they want to be a leader of people, we focus their career on management and people attributes rather than Java programming skills.” Currently, 88 percent of his IT staffers are pursuing the technical track; the other 12 percent





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are the department's future managers.

Tom Moule is climbing the rungs of Schneider's managerial ladder. He joined the IT staff six years ago as a lead technical staffer, just as the dual-track structure was being put into place. "I was focused on projects. I said to my manager, [Managing people] is what I'm interested in. Roughly six months later an opportunity came up to

lead a team," he says. His career has been marked by increasing responsibility: In his first year, he managed a team of eight; now, as director of application development, he manages more than 90 full-timers and about 60 contractors. He also cochairs (along with an exec from the business side) the Transportation Steering Committee, which approves and tracks the company's trans-

portation business unit projects—a nod to the fact that at Schneider, IT leaders are most certainly business leaders.

Of all the tasks Moule has taken on in his leadership development, he cites several presentations he's given as key learning experiences. He spoke at a Balanced Scorecard conference and at a conference sponsored by the Research Board, and he has also made presentations to Schneider's CIO, CEO and IT executives. He says the discipline of gathering information and communicating it well to an audience has been an education in itself, bolstered by coaching from various IT leaders on how to improve his technique. "Plus feedback when I've done a good job," he adds. Sometimes a pat on the back can be just as important as a "here's how you could have done this better" lecture.

Moule lists several other important benefits from the company's leadership training. They include critical-thinking skills ("being able to ask the right questions," he says); synthesizing the data he receives daily to make decisions without suffering from "analysis paralysis"; and understanding the individual skills and strengths of the people he manages and "realizing that you can't manage everyone the same way." He lists one more outcome of his management-track training: "The confidence my leadership has shown in me to give me additional responsibility and the support I need in that role, but not to micro-manage me." Birds gotta fly, after all.

It should be clear to all CIOs by now that the age-old practice of promoting techies to management positions—people who would be much happier ensconced in the server room—does not bode well for the future of your IT department. "You have to realize that the IT job is not just a technical job. It's really about a third business acumen, a third technical skills and a third leadership," says Dell's Mott. "The first thing you have to do is change IT's mind-set away from thinking, 'The only thing I have to worry about is having technical skills. How you work with business partners and understand the business you're in takes technical skills and leadership skills. One common mistake, in my opinion,

## CIOs on Leadership Development

CIOs cite some of the things they've learned over the years for developing leadership in their IT staffs

### START EARLY **Randy Mott, CIO, Dell**

CIOs need to develop their employees' business and leadership skills right out of college, not 10 years down the road. Also, IT leaders should move staffers to new areas regularly so that they are challenged and energized. He admits, "I've been guilty of not rotating people in the past."



### STUDY CHEMISTRY **Steve Matheys, CIO, Schneider National**

Underestimating the chemistry of a team can be critical. "So when thinking about building talent, you have to find talented individuals [who are] capable of working well on teams."



### MIND YOUR MENTORING **Tim Stanley, CIO, Harrah's Entertainment**

If you're going to implement a mentoring program, you'd better do it well. Stanley began one for IT junior staffers about a year and a half ago, but it's now on hold. "We didn't think we had a system in place to make it work well or the time for the mentor and mentee built in or the best approach to selecting people."



### R-E-S-P-E-C-T **Wei-Tih Cheng, CIO, Aetna**

Treat your staff with dignity. "I believe the fundamental Golden Rule applies very well to leadership training: Do unto others as you would have others do unto you."



### SEEK OUT AND CHALLENGE **Paul Donovan, CIO, ING U.S.**

Institute a method of identifying high-potential leaders. "Those leaders typically will be leaders someplace else—if they're not being challenged here, then there's the potential to lose them to another company."



### PUSH THE ENVELOPE—WITH DIPLOMACY **John Carrow, CIO, Unisys**

"I think the major lesson is to stretch people beyond what they think they can do and take some risk in terms of what you allow them to do. Give them the opportunity to make a mistake." Carrow also preaches caution when identifying future leaders. "There are obviously a lot more not identified, so you have to be careful you don't disrupt the rest of the workforce."



—T.D.



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**Unisys CIO John Carrow set up GE-style excellence teams to get his staffers working on important organizational concerns that go beyond technology.**

is [IT departments] don't focus on leadership until someone's been in IT a long time, 10-plus years. It's too late at that point."

In early 2002, Mott held a two-day summit called the Leadership Imperative with around 200 of his IT managers (that is, all those who manage people). Dell President and COO Kevin Rollins helped introduce the new philosophy to the IT team (the program was also rolled out in Dell's other business units). The event's main purpose was to get the managers thinking about why leadership is so important and to help them develop their people skills. This year's leadership program, called Developing Champions, was launched in January. All IT managers around the globe will complete

the program by January 2004. Developing Champions focuses on building better relationships with internal business partners and gaining financial acumen around company metrics.

## PEOPLE SKILLS AND TECHNOLOGY—A DYNAMIC DUO

Denene Coyle, Unisys's director of global training and development, has spent 30 years at the technology services company, carving out a dual role in the IT and finance departments. On the techy side, Coyle handles training activities for the company's internal ERP system. She also serves on seven organizational excellence teams and

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develops IT training curricula. On the finance side, Coyle provides curriculum advice for the IT finance and procurement courses at Unisys University, the company's in-house training program. How did this unique position come about? "I wrote a white paper that created this job," she says, matter-of-factly. She reports to the CFO, Janet Haugen, but both Haugen and CIO John Carrow give her performance reviews.

Coyle highlights the organizational excellence teams as particularly important in developing leadership skills. Carrow adapted the concept from his days at GE and the city of Philadelphia, and brought it to Unisys about four years ago. The idea behind the teams is to get IT workers involved in meaty organizational issues that go beyond technical con-

**"WE ALLOW PEOPLE to see where they want to go. If they want TO BE A LEADER OF PEOPLE, we focus their career on management and people attributes rather than Java programming skills."**

—STEVE MATHEYS, CIO, SCHNEIDER NATIONAL

cerns. So, for example, teams have formed around how to assimilate employees better into the company, how to communicate better, how to improve skills and how to get better at identifying employees' areas of expertise. About 15 to 20 volunteers join each team. "The [organizational excellence] teams helped us identify key leaders [via seeing] who became the natural leaders of teams," says Carrow, who heads a staff of 850. "There was a

high degree of correlation with the talent review process in the company."

For Coyle, the benefits of working on those teams go beyond the specific subject matter. Because the teams are voluntary and don't have a big stick to wave to "cajole" others in the company, Coyle has learned collaboration and influence skills. "You're a motivator and cheerleader and someone who needs to communicate well to get people on board," she says.

Coyle is a big believer in participating in the more informal activities that a large company offers—both for altruistic ends and for the leadership opportunities that those activities present. "When I talk to people about leadership and career advancement, I always talk about the nontraditional activities, things outside of your job," she says. She chairs the Unisys professional women's forum (which helps develop women's careers) and heads one of the three teams that compose the company's North American diversity council. "At Unisys, being able to matrix-manage [that is, manage people and projects that don't report to you] across a variety of organizations is key. Those are difficult skills to hone. Through some of the activities I've been involved in, I've been able to practice those skills. The higher up you go, you have to be able to influence people, to collaborate. You have to convince people that what you're recommending is the right thing. You have to learn how to influence without the strong hammer of having them report to you," Coyle says.

Not to be overlooked are the networking prospects these activities offer. "You meet people you'd never meet in your traditional role, and that allows you to have opportunities in areas of companies you wouldn't normally have," she says. Coyle makes a good point—slapping backs, shaking hands and

## Performance Reviews Matter

Companies continue to rely on performance reviews and courses in communication and business principles to identify and develop employees with leadership potential

**REVIEWS** Performance reviews are integral to giving employees feedback as well as helping them develop their careers. At Royal Caribbean, one or even two reviews a year doesn't cut the mustard; CIO Tom Murphy and his managers do quarterly reviews, and employees have both a professional and a personal development plan, which complement each other.

Harrah's Entertainment takes a three-pronged approach to the review process. First, managers administer biannual performance reviews. Second, workers sit down with supervisors to outline and track their training plans and their career development using People3's IT-HR application. At that point, people are given a chance to identify their wants—say, the opportunity to attend a technical conference—and supervisors also record what projects they have worked on. That allows resource managers to look at the app and say, This would be a good project for Joe or Mary to work on. The third element involves an annual talent review and succession planning exercise in which IT senior executives look at all 500 or so of Harrah's IT employees to identify the strongest performers and plot out succession plans. The succession plans are recorded in a specialized succession planning system used by the company as a whole.

**COURSES** Offering courses, whether classroom or online, gives IT executives another way to help their employees grow professionally as leaders. At Schneider National, most courses are open to all 425 IT employees. Entry-level classes include communicating effectively, writing for effective messaging and reading a financial statement. Advanced classes cover topics such as concepts of leadership, the role of leaders and change management.

—T.D.

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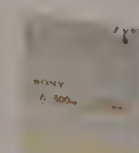
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trading war stories with leaders in other IT or business units can add a little turbo boost to one's journey up the corporate hierarchy. Meeting people outside company walls has been valuable to Coyle. "That grounds you in making sure you clearly understand the company's positioning in the marketplace and what customers think is important," she says.

Ultimately, one of the most important goals in leadership development has to be growing and nurturing people skills, the human qualities necessary to lead. That's an aspect often overlooked. Often, people's leadership qualities are judged strictly on how good they are at getting results—achieving the goals of their business units, for example. But believing that making your numbers makes you a good leader is like saying that playing a mean clarinet turns you into a great bandleader. Great leaders possess the whole package; they get results and know how to motivate and get the best from people.

Leadership author Terry Pearce says that execs who want to be more effective leaders should observe four principles: understanding what your values are, creating the courage to speak about your values, developing the necessary emotional intelligence to lead and learning how to connect with people at the limbic level (that is, through emotion and motivation). Pearce, who wrote *Leading Out Loud* and founded the consultancy Leadership Communication, recommends that his clients get 360-degree feedback on their leadership performance from their bosses, peers and the people they manage.

The results can be surprising. One exec he worked with at Charles Schwab several years ago, Pearce says, "was the most dynamic, smartest person I'd ever met, but he intimidated the hell out of people." When the exec's direct reports gave him perform-

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## Fighting an Entrenched Culture

A Coast Guard commander finds that developing IT leaders can be a titanic struggle

**CAPT. ROBERT DAY, DIVISION CHIEF** for the United States Coast Guard Pacific Area, recognizes that his IT organization, which numbers 265 people, has a serious gap in leadership development. Unfortunately, he has found it to be a difficult fix.

The deep-rooted culture of the Coast Guard has always favored generalists for promotion to leadership positions. "Since the Coast Guard's real mission is flying planes and saving lives, IT specialists were not readily looked upon as guys who'd be promoted to admirals and commandants," says Day, who is in charge of command, control, communications, computers and information at the Coast Guard in Alameda, Calif. "There wasn't a direct tie of the work they did to the operational side of the business that the public sees. Consequently, we've had a lot of problems with retention." He estimates that from 1996 through 2000, about half of the folks with the most leadership potential left for the public or private sectors, frustrated by the lack of upward movement and no formalized leadership program.

Though it will take a boatload of time for IT specialists to break through the cultural barriers and be viewed through the same lens as their cutter- and airplane-piloting brethren, Day feels things are moving in the right direction. "The biggest thing has been the circling of wagons of senior IT leadership for mentoring these guys and at the same time fighting the case with senior [Coast Guard] leadership of letting the business guys know in business terms what these [IT] guys can do," he says. Day is also excited about last year's appointment of Clifford Pearson as CIO. Pearson is the first CIO since the Coast Guard created the position seven years ago who has a predominantly IT background. "We're seeing the impact of that decision already," he says. "There's a much tighter focus on the entire IT program, and alignment with key business is even closer."

—T.D.

ance assessments, the feedback was exactly what Pearce expected: He was competent, but people hated to be around him. The exec couldn't change his behavior, however, and ended up leaving Schwab.

## TAKING CARE OF BUSINESS

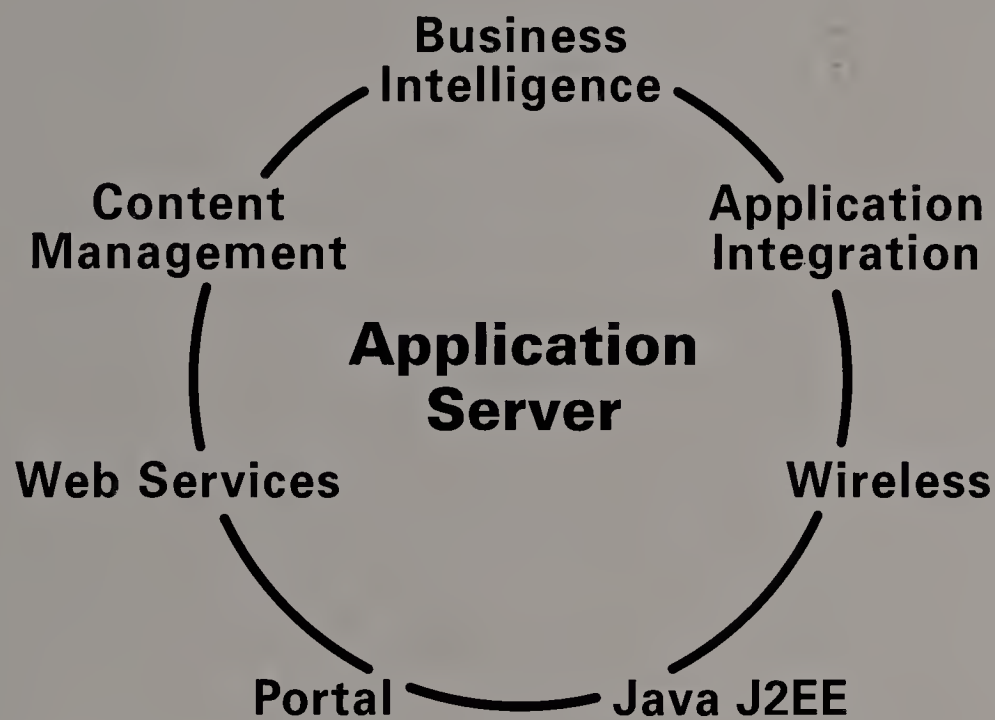
As befits someone who's absorbed a great deal of management know-how while ascending the IT ranks, ING's Heege can rattle off a list of competencies necessary for leadership. "It's about being able to create a vision, build a high-performing team, make sure the right talent is in the right position, execute, challenge the status quo to ensure we're creating fresh thinking and relation-

ship management skills—building relationships with our business partners," she says.

Business relationship management, as Heege calls it, is a critical component of the well-rounded IT leader. "The way to build strong relationships is to really know the business, talk the business language, and, as the technology needs are expressed [by the business], you come back and deliver solutions," she says. But to deliver solutions, she emphasizes that potential IT leaders had better know technology well enough to be able to show the business how it can meet its needs in different ways, thereby increasing business value.

Heege has built an affinity for the business side through several affiliations: project management training at Boston University,

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## All Aboard: Royal Caribbean's Lead IT Program

Two IT managers, taking a cue from their leadership-evangelizing CIO, launch a grassroots program that brings leadership skills to the entire IT staff

**FIRE UP AFTER** a two-day leadership seminar last year run by author and leadership consultant Terry Pearce, Greg Martin, manager of client/server and messaging solutions at Royal Caribbean, was inspired to act. His colleague, Geoff Lawson, an IT manager, says, "It was evident Greg had a lot of passion around leadership development. He recognized the need and desire for a grassroots leadership development program."

Martin developed the concept and presented it to CIO Tom Murphy, his direct reports and eventually the IT management team, which gave it the thumbs-up. The Lead IT program launched last November. According to the flier announcing the new program, Lead IT "prepares Royal Caribbean IT for the future by making sure that the people who will lead us have the vision and skills needed to succeed."

Martin and Lawson act as cofacilitators and serve on the steering committee, which includes an IT vice president. There are currently 40 to 45 people involved in the program, which holds half-day sessions every six to eight weeks. The only criteria for joining the program are that people agree to attend on a regular basis and participate. "We didn't want it to be elitist—people handpicked by upper management," says Lawson. "We wanted it to be inclusive."

The main goals of the program are to build trust and open rela-

tionships across different departments within IT and to establish a learning culture where people can share ideas in a supportive environment. "A common thread when we ask people what they want to get out of it isn't people saying, I want to be a director next month; they say, I want to speak better in public. [This provides] a safe place among their peers to practice," says Lawson.

This year, the company has held three sessions. For one, participants read and discussed *First, Break All the Rules: What the World's Greatest Managers Do Differently*, by Marcus Buckingham and Curt Coffman; in another, they discussed *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*, by Clayton Christensen. The group has also hosted guest speakers, such as Murphy and Miami-Dade County Mayor Alex Penelas. Other activities have included group members presenting profiles of leadership (Winston Churchill and Rudy Giuliani are two that have been discussed) and discussions of communication and presentation skills and diversity. But the better part of each session involves interaction among the participants. Martin says, "Ninety percent of the program is people sharing their experiences."

The feedback has been positive so far. "People are using it as a baseline to go back to their team and see how they can improve," says Martin.

—T.D.

a women's leadership council at a previous job and an internal leadership council at ING U.S. (headed by CEO Tom McInerney). Her role on ING's Defined Contributions Market team, which was formed in November 2002, is both her reward for business knowledge and a high-level training ground. "To have respect on the team, you need to know the business, have passion for the business and have the desire for the business to succeed," she says.

Harrah's Entertainment builds business expertise among IT staffers through its Executive Associate program, which pairs potential leaders with senior executives in the company for about 18 months. Executive Associates are given special projects to help

them grow as leaders. Sometimes they even vault the IT wall: Tim Stanley, CIO of Harrah's Entertainment, notes that one IT staffer worked for the COO, then was promoted to vice president of strategic sourcing.

For hospitality companies like Royal Caribbean, it all comes down to taking care of people. So CIO Tom Murphy has come up with an innovative way of targeting future IT leaders—he sees which folks shine brightest in the company's community service initiatives. The company's annual Give Day event requires some people to coordinate projects with a number of nonprofit organizations. "It's the single largest one-company community service event in Florida," Murphy proudly notes. "We observe

who shows an aptitude for leadership on those projects. Those people tend to get a little bit more opportunities. They're actively engaged in the culture of the organization, taking on additional responsibilities. Passion is an important part of effective leadership," he adds.

Are you passionate about developing leaders? If not, now's a good time to get on board. Maintaining the status quo will guarantee you and your crew sure passage to mediocrity. **CIO**

Want to know more about leadership development? Check out our online Leadership and Management Research Center at [www.cio.com/leadership](http://www.cio.com/leadership). Senior Editor Todd Datz can be reached at [tdatz@cio.com](mailto:tdatz@cio.com).



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# Business Intelligence Gets Smart(er)

BY ALICE DRAGOON

Companies are using business intelligence software for more than simple data mining. They're using it to identify hot sellers, cut costs and discover new business.

**I**t looked like your average faux fish, mounted on a faux wood plaque. But when you walked by, the fish would turn its head, open its mouth and start singing, "Don't Worry, Be Happy" or "Take Me to the River." Pure kitsch. And as it turned out, pure gold for the True Value store owners lucky enough to have them in stock. "It was a hit," says Neil Hastie, former CIO of TruServ, a member-owned hardware cooperative of 7,000 or so independent retailers. "We ran out of them." So when the same company came out with a gopher singing "I'm All Right"—remember *Caddyshack*?—it seemed like a sure bet. "Everyone thinks, 'God, this is the second fish! Let's order the hell out of it.' So we did," Hastie says. "We ended up with truckloads of gophers we couldn't give away."

#### Reader ROI

How BI software can help extract hidden value from data

How to identify different applications for BI software

Tips for rolling out BI software



Fortunately for TruServ, the company had business intelligence (BI) software that helped it recognize the gopher fiasco early enough to liquidate the unwanted rodents and recoup some of its expenses. That ability to quickly make sense of oceans of data can be a competitive advantage, making BI software essential for many companies.

CIOs are hardly flush with cash these days, but they are interested in BI—very interested. A 2003 Forrester Research report found that 45 percent of companies surveyed planned to shop for BI software this year, which explains why vendors such as Business Objects and Cognos have seen double-digit increases in their revenue. With today's BI tools, business folks can jump in and start slicing and dicing data themselves, rather than wait for IT to run complex reports. This democratization of information access helps users back up with hard numbers business decisions that would otherwise be based only on "gut feelings."

A broad range of applications for BI is helping companies rack up impressive ROI figures. Business intelligence is being used to identify cost-cutting ideas, uncover new business opportunities, roll ERP data into accessible reports, react quickly to retail demand and optimize prices. TruServ's Hastie, for example, spent \$250,000 on BI software from Business Objects and says the investment paid off in about two months. Besides using it to track anomalies like the gophers through an executive dashboard, TruServ is also pressing it into service as a CRM tool and is using it to integrate data from disparate accounting systems, which will help the company close its books two days earlier every month.

Otherwise tight-fisted CIOs are spending money on BI software because its relatively low investment yields fast payback, says Larry Downes, strategy consultant and author of *Unleashing the Killer App* and *The Strategy Machine*. "[Unused data] is still a great source of untapped productivity and competitive advantage for most companies," he says. Just how much data is going unused? Downes guesses companies are extracting value from

7
Rules to Rolling Out BI

To get the most value from BI with the fewest headaches, follow this advice from Rebecca Wettemann, vice president of research at Nucleus Research.

1. **Make sure** your data is clean.
2. **Train users** effectively.
3. **Deploy quickly**, then adjust as you go. Don't spend a huge amount of time up front developing the "perfect" reports because needs will evolve as the business evolves. Deliver reports that provide the most value quickly, and then tweak them.
4. **Take an integrated approach** to building your data warehouse from the beginning. Make sure you're not locking yourself into an unworkable data strategy further down the road.
5. **Define ROI clearly** before you start. Outline the specific benefits you expect to achieve, then do a reality check every quarter or six months.
6. **Focus on** the business objectives.
7. **Don't buy** business intelligence software because you think you need it. Deploy BI with the idea that there are numbers out there that you need to find, and know roughly where they might be. "It can be a needle in a haystack," says Wettemann. "But you should [at least] know what field it's in." —A.D.

only about 20 percent of their data.

Of course, the potential of any unused data is only as good as the quality of the data itself. The success of any BI implementation depends on having clean data to mine. Some companies are so gung-ho about BI that they've invested in multiple systems, which may be tough to integrate, says Forrester analyst Laurie Orlov. She says it's not unusual for larger companies to have

at least five BI platforms. She also warns of information overload, citing as a cautionary tale a CIO who said his 100,000 employees all have access to hundreds of dashboards, what Orlov calls a "firehose problem."

## Time to Leverage That Data

To get at that data stuck in corporate America's big-ticket enterprise systems, many companies are turning to BI software. "We've seen a number of companies that invested a lot in ERP or CRM that have not necessarily seen the big returns they expected," says Rebecca Wettemann, vice president of research at Nucleus Research. "They're looking to BI as a way to, with a small additional investment, squeeze additional value out of those systems."

FiberMark North America spent \$4.5 million on ERP software from J.D. Edwards and \$3.5 million on Oracle, but the manufacturer of specialty packaging and paper couldn't easily get at the data. "Typically, ERP systems collect data wonderfully, but don't report out worth a darn," says Joel Taylor, director of IS. "We were desperate to get good information quickly." Taylor spent less than \$75,000 on QlikView—BI software from QlikTech that grabs FiberMark's data from J.D. Edwards, Excel spreadsheets, and Oracle and Access databases, and stores it in the server's RAM (eliminating the need for a data warehouse).

Now, instead of printing 1,000-page monthly sales reports for each of FiberMark's 29 salespeople, Taylor's staff has shown them how to access the data from the corporate intranet any time they want. "With a very short training cycle (15 minutes), they're up and flying," says Taylor. "They print four pages, not 1,000." He says the system paid for itself in nine months in saved paper, toner, and printer wear and tear alone. More important, though, salespeople and executives can get at data that's refreshed daily.

When Quaker Chemical began operating as a global entity in 1999, newly appointed CIO Irving Tyler suddenly had to create a single global view from 14 transaction sys-



tems. Tyler had already built data warehouses for U.S. and European customer and product information, so he decided to scale up into a global data warehouse, giving users access through an Internet-based BI tool from SAS. The whole process took three months.

He put plans for a three-year migration to a common ERP system lower on his priority list. "In reality, an ERP system is not very clever," he says. "If we hadn't put in the capability of business analytics tools for the data warehouse, we couldn't operate globally. Because suddenly, a global manager responsible for sales and product results literally would have had to go to 14 sources for information."

Besides making data accessible, BI soft-

much as \$140 million of those savings. Motorola has now begun collecting procurement data from its manufacturing out-sourcers. The idea is to ask suppliers to extend all negotiated deals to those business partners, who are then expected to pass along some of those savings to Motorola.

### Discover Opportunities, Drive Decisions

**W**ithin the walls of the enterprise, there are plenty of opportunities to save money by optimizing business processes and focusing decisions. BI yields significant ROI when it sheds light on business bloopers, à la Tru-

#### Talk to Irving Tyler

As the new CIO at Quaker Chemical four years ago, Irving Tyler had to create a single global view from 14 transaction systems. He did this and more using business intelligence software. Want to know the ins and outs? **ASK THE SOURCE.** You can pick Tyler's brain about the process, or share your own ideas, through Sept. 30. Go to [www.cio.com/ask](http://www.cio.com/ask).



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we just had paper, we couldn't analyze efficiently what was going on," says Dan Rosman, director of IT. Using BI, Jelly Belly confirmed its suspicion that many Mom-and-Pop candy stores—which represented half of the company's business—were closing in the face of competition from the likes of Target and Wal-Mart. That justified Jelly Belly's decision to increase staff handling its national accounts from four to 10. While the specialty store business has dropped 11 percent from 2001 to 2003, national business has increased 17 percent.

BI analysis can inspire companies to launch new business ventures. After using BI to realize that its strategy of selling product in small quantities to many different customers didn't make sense, Quaker Chemical developed a value-added reseller (VAR) strategy for its small customers two years ago. In each region, the company sought a local partner with complementary, noncompetitive products already working with smaller customers. "That enabled us to get into this segment of the market in a way more in tune with our ability to serve it from a cost-effective point of view," says CIO Tyler. Small customers now account for about 5 percent of Quaker's business. Its goal is to bump that up to 25 percent by leveraging the VAR strategy.

### Track What's Hot and What's Not

**T**o jump-start a campaign to reduce "red zone" inventory, Tru-Serv used Business Objects to identify products that had been languishing in one of its 14 warehouses longer than 120 days. The company

Unused data is a great source of untapped productivity and competitive advantage for most companies. —LARRY DOWNES, strategy consultant and author

ware can give companies more leverage during negotiations by making it easier to quantify the value of relationships with key suppliers and customers. Given a corporate directive to cut purchasing costs by \$2 billion in 2002, Motorola needed a consolidated view of its global supplier network. It used Informatica's PowerAnalyzer to analyze purchasing data to ensure that buyers around the world were taking advantage of negotiated deals. The tool automatically alerts buyers when they exceed spending thresholds that entitle the company to discounts. "It should jump out at you that the next \$10,000 worth of spend with this vendor should be 5 percent less," says Chet Phillips, a director of IT at Motorola. "When you've got tens of thousands of vendors, that's an issue. You want that information to be pushed to you." Motorola surpassed its goal of saving \$2 billion last year, and Phillips says its BI tool was directly responsible for as

Serv's gophers. Employees of the city of Albuquerque, N.M., for example, used Cognos to identify opportunities to cut cell phone usage, overtime and other operating expenses, saving the city \$2 million during three years. Likewise, using Brio's BI software, Toyota realized it had been double-paying its shippers to the tune of \$812,000 in 2000.

Companies are also using BI to justify or disprove the wisdom of what would otherwise be gut business decisions. "Too often, evaluations of opportunities for growth are based on gut feelings, estimations and assumptions because it would be too expensive and time-consuming to get hard data," says Nucleus's Wettemann. "BI can let you run some quick numbers to justify that gut."

Jelly Belly Candy knows plenty about the subjective business of pleasing palates, but when sales dropped off after the Sept. 11 attacks, the company wanted more to go on than gut feel to determine why. "Because

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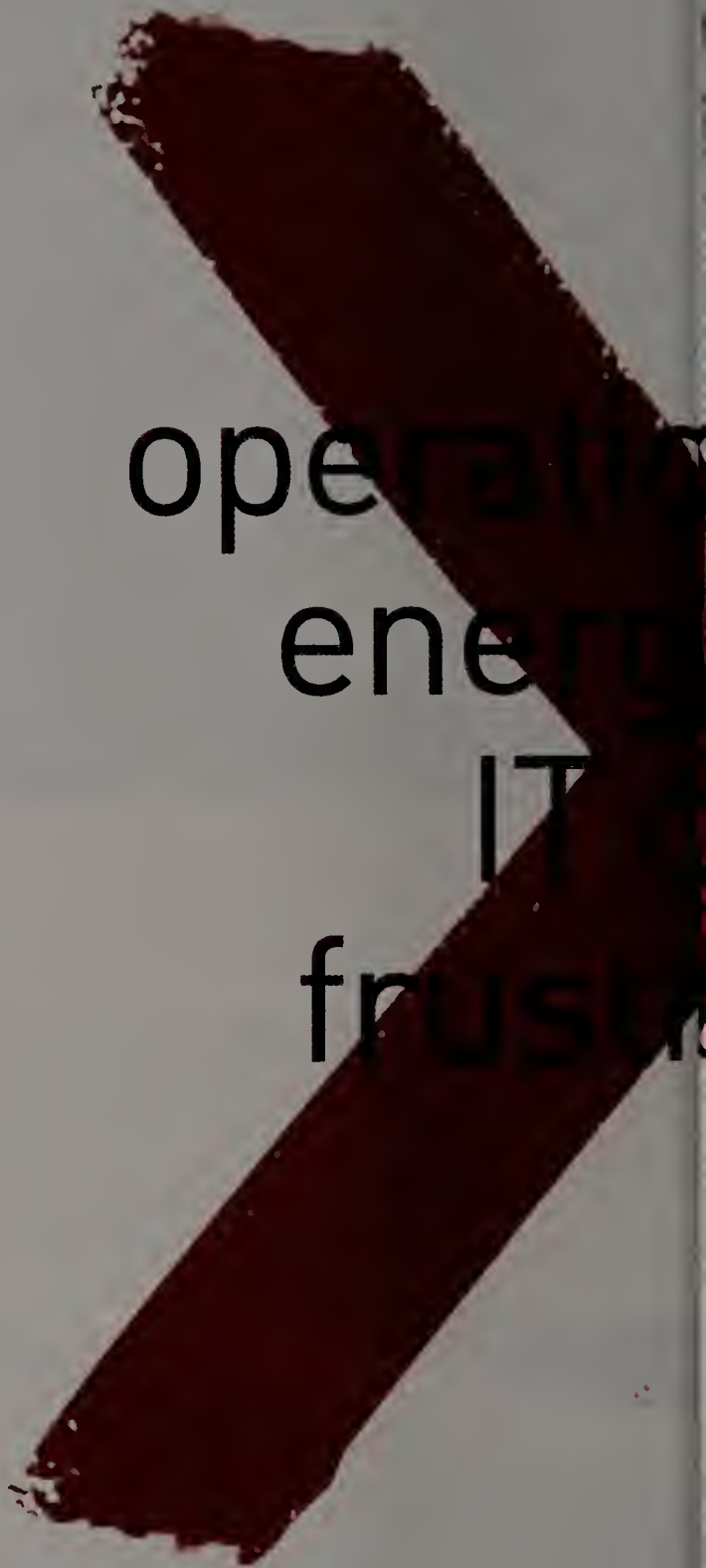
## Business Intelligence

fed that information into supply chain software from JDA Software Group, which pulled the merchandise from the distribution centers and sold it to member stores at or below cost. That helped TruServ save \$50 million in inventory carrying costs in 2002. Marketing managers at TruServ also use BI to identify where promotions are doing well and quickly redirect merchandise to those distribution centers from areas where the promotion is faring poorly.

Jelly Belly's bean experts use Panorama's NovaView to access and analyze cost and sales volumes to identify unprofitable products. The company realized Carrot Cake jelly beans and the product mix known as Apple Orchard weren't selling well, so the decision to nix them from the lineup was a no-brainer. Rosman says product review meeting times have been reduced by 75 percent because their data is accessible and easier to understand.

Retailers are also using BI tools to help identify home runs—and strikeouts—soon after they hit the stores. Belk, a chain of more than 200 department stores, first invested in Microstrategy's BI tool in 1996. "We realized we had a tremendous amount of data but didn't have the capability for exception reporting," says CIO Roddy Kerr. As the company moved from buying for single stores to buying for the entire chain, efficient access to chainwide data became critical. Today, Belk can drill down to see how different styles, sizes and colors are selling. The company sends more than 400 e-mails every week to its trading partners, giving them a complete view of their sales results. With vendors literally on the same page, it's easier for Belk to adjust orders according to actual demand. (To read more about demand forecasting, see "Future Results Not Guaranteed," [www.cio.com/printlinks](http://www.cio.com/printlinks).)

"We focus on the things that are selling both faster and slower—things that are doing extremely well to optimize those and things that are not moving as quickly as they should so we can get after them early and minimize the negative impact," he



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explains. He adds that BI has increased Belk's comfort with buying larger quantities. "It really helped us see what we can do with an item," he says. "If we get behind it, it's amazing how many pieces you can really sell."

Sometimes, as TruServ knows, an item can sell too well. One of its buyers got such a great deal on a teak and wrought-iron park bench from China that TruServ priced it at \$29.95. Stores said they wanted 17,000. The buyer upped the ante and ordered 40,000; then TruServ ended up selling 92,000. "It was a supply chain nightmare," says Hastie. "Through BI, we saw this thing was about to explode the third or fourth week into the promotion. We got our buyers and import department scrambling to meet all the rain checks handed out to consumers." Although TruServ had to source a lot of the extra benches domestically and eat the extra cost, the company ended up breaking even. "BI tells you how well a promotion is going way ahead of schedule, so you have time to react in front of the supply chain to make the promotion a success," Hastie says. "If something's selling faster than the forecast, we can make adjustments and order more."

### Pick the Perfect Price

**H**itting on the price that maximizes profits has long been an art, but BI's ability to crunch data in short order is changing that. "We're able to put a lot more science into establishing suggested retail prices," says Mike Altendorf, vice president of IT at Ace Hardware. Although stores are encouraged to adapt pricing to their location, BI has helped Ace show store owners how much they could expect their gross margins to increase if they were to raise their prices to Ace's suggested retail. In many cases, it was more than \$50,000 annually per store. Ace had hoped to increase its wholesale margin by \$19 million in one year. It actually increased by \$175 million.

A "price to win" initiative at competitor



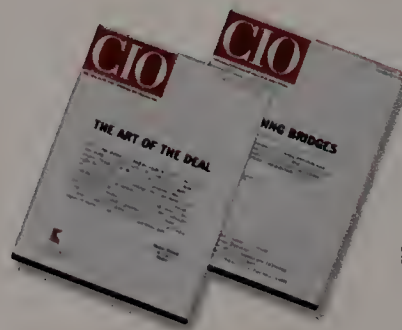
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TruServ used BI to measure the impact of lowering prices in certain segments. “We gave away gross margin hoping to increase sales,”

chore that the company did it once a quarter. "It wasn't necessarily consistent. And it certainly wasn't mathematical," says Bill

raising the price, pinpoint where the item could be sold for the most short-term profit and identify which customers clamoring for the product are likely to generate the most long-term profit. CIO John Watkins says Fairchild spent “a couple million” on BI, but the investment has already paid for itself through better pricing alone.

Whatever uses CIOs foresee for BI, Nucleus's Wettemann advises going for the easy payoff first. (See "Seven Rules to Rolling Out BI," Page 85.) Quaker Chemical's Tyler concurs. "Build a simple infrastructure," he says. "You can always do more, but you can never do less. There's a tendency to do something fancy." It's better to build something simple, get it into users' hands, and let them tell you what more they need. "Don't deliver reports," he says. "Deliver tools." **CIO**

E-mail feedback to Senior Editor Alice Dragoon at [adragoon@cio.com](mailto:adragoon@cio.com).

Retailers are using BI tools  
to help identify home runs  
—and strikeouts—soon after  
they hit the stores.

says Hastie. “It didn’t increase velocity.” So in a matter of three to four weeks, TruServ ended the sale. Hastie says that without BI, the company would have analyzed the data at the end of the quarter, reanalyzed it after the next quarter and continued giving away margin for six months instead of one.

At Fairchild Semiconductor, pricing its 50,000 products manually was such a

Hall, vice president of interface and logic. “A lot of pricing in the past had been done with gut feeling.” Using a BI-powered dynamic pricing engine, prices are easily adjusted weekly, factoring in current worldwide market conditions, manufacturing cost, and capacity and current inventory. If Fairchild can’t produce enough of a hot-selling item, BI helps analyze the merits of

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FRAGMENTED INFORMATION. Disengaged employees. Missed revenue opportunities. These are the consequences of a poor enterprise-reporting environment—a patched-together network of disparate, incompatible systems that provide inconsistent and frequently inaccurate views of the business. Instead of drawing upon integrated data to make faster, better business decisions, too many companies today are bogged down just trying to *generate* timely, accurate reports.

Money isn't the culprit. Companies have spent countless dollars on massive data warehouses and operational systems. They've assigned highly trained IT staff to manage and mine them to help generate reports. Despite these overtaxed teams' best efforts, when reports are generated they are often out of date by the time they hit someone's desk. The problem is that these proprietary data stores are optimized for data storage, not for reporting. Worse yet, they don't integrate well with other reporting packages and they require more technical know-how to navigate than most end-users possess. As a result, as companies increasingly depend on real-time data to help manage costs and drive new business opportunities, these expensive, inaccessible systems keep decision-makers stuck in "park."

"Nothing today frustrates senior management more than executives from different

functions coming to a strategy meeting with reports and suggestions based on data that doesn't match up," says David Folger, VP of enterprise analytics strategies at Meta Group Inc., the Stamford, Conn.-based business consultancy. "As a result, more time is wasted arguing over the different numbers and their validity instead of making well-informed, quick business decisions that all functions agree on."

What's needed, according to Folger, is a massive overhaul in how companies approach enterprise reporting. "Senior management needs one version of the truth to enable their firms to operate better and quicker in a fast-moving business environment," Folger says. "If you're in the flower business and Valentine's Day business makes up 40 percent of your revenues in a year, getting valuable business information two days later is far too late."

Mark Smith, CEO and senior VP of research at Ventana Research, a global business and technology research firm in Belmont, Calif., says he has seen honest—but largely fruitless—attempts to improve enterprise reporting. "Over the last five years, most companies have undertaken efforts to move data into vast data warehouses," Smith says. "Now, it's a top priority for IT departments to hook the best tools to [the warehouse] and to distribute the data to the broadest end-user population for analysis. But they're faced with

"Nothing today frustrates senior management more than executives from different functions coming to a strategy meeting with reports and suggestions based on data that doesn't match up."

— David Folger, VP of enterprise analytics strategies, MetaGroup



## > CUSTOMER CASE STUDY: WRITING NEW LYRICS AT ALFRED PUBLISHING

**A**fter her company caught a serious case of the enterprise-reporting blues, Sylvie Manus, MIS Director at Los Angeles-based Alfred Publishing, opted to try the simplicity and ease-of-use of ReportNet. And already the music publisher's employees are singing a happier tune.

"We were spending a huge amount of time troubleshooting problems, fixing reports and trying to manage their use—which

"We don't want  
our workers  
spending  
precious time  
learning tools,"  
Manus says.

"We want them  
to write."

had already required us to hire folks with specialization in all the myriad reporting tools in our company," recalls Manus of the days before ReportNet. Ninety percent of Alfred's employees are professional musicians, typically possessing very little computer or technical knowledge, Manus says. They need reports, but have little interest in what goes on behind the curtains to produce and deliver them. "We had to tie up valuable IT folks on reports and had to turn many users away, which meant they left frustrated, sought help elsewhere or made things worse by buying additional tools," she says.

In deploying ReportNet, Manus has two main benefits in mind: freeing up MIS staff (and thus cutting costs by offloading much of report creation to end-users), and providing all user parties with simple, easily scalable reporting tools and the functionality and flexibility required to grow the business.

"We're expecting to double in size in five years, which means we need ReportNet to unify our reporting efforts by providing everyone the same level of knowledge," says Manus. "And we'll certainly maximize our investment by freeing up MIS staff, some of whom spend their entire careers helping users do reporting, to work on much more business-critical efforts."

Manus has deployed ReportNet in Alfred's accounting operations, with marketing and editorial soon to follow, as part of a phased, organization-wide rollout designed to replace all the firm's current reporting packages. And so far so good: the end-users are finding the tool to be as intuitive and as manageable as advertised—which is good news for MIS and Alfred's non-technical staff.

"We don't want our workers spending precious time learning tools," Manus says. "We want them to write [music]."

**Alfred Publishing**

fewer resources and less time to get workers the tools they need to build and change reports to meet their needs."

Rob Collins, CIO of Cognos, is well familiar with the resource challenge. "Cost management is at the top of everyone's list. Readily available funding for new IT projects is a thing of the past. Today you have to be creative—for instance, we try to drive out 10 percent of the cost of our lights-on efforts to fund any new initiatives." In Collins' view, there is a greater opportunity to drive out costs of reporting as it exists today. "The disparate reporting systems you find everywhere today mean you need IT staff trained on every different tool. If I can standardize, I can get one person to write more reports. I'm saving money. And I can service my end-users better." (For more from Collins, see "Q&A with the CIO," page 5.)

The *ideal* enterprise-reporting system, Smith and other experts say, must be easy to deploy, easy to use, and all-in-one. From a business perspective, this package must deliver flexibility and functionality to users throughout the enterprise, and be tailored to meet their specific needs. From an IT view, the system must optimize existing IT investments by integrating with installed data sources, enterprise applications and current business intelligence tools. All this must be done, of course, across organizational and geographic boundaries to enable truly global operations. And the economic imperatives are such that this ideal enterprise-reporting solution must lower total cost of ownership and help IT departments cut operational costs through sharply reduced training, management, support, software licensing, integration and expansion requirements.

Yet, up until now, this ideal system has been just that—an ideal.

### CHANGING THE RULES: COGNOS REPORTNET™

ReportNet, a new enterprise reporting solution from Cognos, may well be the answer business leaders have sought. Unlike any reporting product on the market to date, it is entirely Web-based and makes complicated reporting tasks dead easy to execute. ReportNet is just now being released, but already it's drawing rave reviews from indus-



## > Q&A WITH COGNOS CIO ROB COLLINS

### An IT Leader on the ROI of ReportNet

**A**s CIO for Cognos, a global software company with over \$500 million in annual revenues, Rob Collins is a business-savvy leader who understands the enterprise-reporting challenges that all IT leaders face. Below, Collins offers insights on why his company's ReportNet is breakthrough technology and how IT organizations can best achieve its enterprise-reporting promise.

**Q: What's the risk of conducting business as usual in today's reporting environment?**

**Collins:** When you rely on different reporting tools, how do you know you're delivering consistent data to your users? You don't. The result is that people end up spending time in meetings arguing over whose data is correct. That means you're literally putting business decision-making at risk, which is a real problem, but one that doesn't show up in your quarterly financial reports.

You simply can't afford to have a business where the reporting environment is mismatched with the BI environment and the company strategy. When the CEO and CFO sit down and their numbers match up, and so on down the line, that's better business and better performance overall.

**Q: How can ReportNet help out?**

**Collins:** The answer is pretty pragmatic: by reducing your reporting backlog. IT's ongoing challenge is to keep end users from running off and being dangerous with their own wide-ranging solutions. This is where ReportNet really blows the door off things. It is so accessible, you can essentially turn users into report authors and make each group responsible for its own reports. When I only have to support one reporting toolset, I not only make end users responsible for their own backlog, I'm freed up to focus on reporting infrastructure and delivering consistent information across the board. And I can deliver consistent information and support reporting worldwide with a few people, instead of swamping an entire IT department.

**Q: Please explain the relationship between reporting and business intelligence (BI).**

**Collins:** Reporting naturally flows into BI.

You can't say, "Here's the dividing line."

Reporting is so ubiquitous, it's seen as distinct. But scorecarding, dashboarding, analysis, even planning—these are all important and highly related activities in an organization. The potential performance benefits are obvious if they're all linked in a logical framework with a consistent metadata architecture and share a common infrastructure.

**Q: What advice do you offer to companies trying to determine how to best introduce ReportNet in their companies?**

**Collins:** Reporting is typically a discrete investment. It's the CIO's decision. So, it's easy to start immediately. I would recommend introducing ReportNet with your new reporting applications, and take a piece-by-piece approach to implementation. Any CIO will tell you that you don't want to replace applications that are already working for end-users. In time, eventually every application has to change. That's when you transfer them over to the new tool.

**Q: How does ReportNet line up with your advice and how your own IT unit operates?**

**Collins:** I can tell you, if you give ReportNet to one person in IT to play with, you'll have a reporting standard in three months. It's that easy for user uptake and that great a fit with existing infrastructures. Nobody can afford to replace all the reporting packages they use today. ReportNet lets you move as your business dictates, not the technology.

#### Rob Collins



"You simply can't afford to have a business where the reporting environment is mismatched with the BI environment and the company strategy."

— Rob Collins,  
CIO, Cognos





Rob Rose

"People have settled for the fact that they have to do all this with multiple applications. They don't believe it can be any other way."

— Rob Rose,  
VP, corporate  
strategy, Cognos

try experts and customers who have had sneak peeks and initial success.

"ReportNet is a major breakthrough for reporting and business intelligence convergence," says Ventana's Smith. "It brings a completely new level of simplicity in the design and use of reporting and analysis for large sets of users with varying needs. It integrates the complete Web-based interface for design, consumption and analysis of reports into one product."

Sylvie Manus, MIS director at Los Angeles-based Alfred Publishing, is one of the first ReportNet customers, and she already attests to the product's user-friendliness. "We need ReportNet because it's straightforward and doesn't create confusion or require a learning curve," Manus says. "The high skill level needed in our current reporting environment has everyone calling MIS for help. And we can't help them because we're already busy as heck." (For more on Alfred Publishing's ReportNet experience, see case study, page 4.)

Simplicity and ease-of-use were key design objectives in developing Cognos ReportNet. The goal was for end-users—without benefit

of technical expertise, client software or training—to be able to use or develop virtually any type of report, from sales reports to high-volume billings and more, and then to unify these reports in a single analytic tool. By giving end-users more control over their reports, IT organizations can expect to dramatically reduce or eliminate the gigantic backlog of worker requests for assistance, thus cutting report cycle times from weeks or months to days or even hours.

While this simplicity is a much-heralded boon to IT, it's not all there is to the ReportNet story. "People have settled for the fact that they have to do all this [reporting] with multiple applications," says Rob Rose, VP, corporate strategy at Cognos. "They don't believe it can be any other way." In fact, ReportNet is the first single reporting system capable of producing production reports such as invoices, statements and statutory reports, as well as the broad range of business reports that help everyone in a company understand its operations better and make effective decisions.

Many point to ReportNet's multilingual support as a feature that stands testament to the product's claim as the first truly all-in-one enterprise reporting standard. With this built-in, out-of-the-box functionality, reports can be built once and shared across many languages without the need for additional translation or formatting. ReportNet allows data to be read once and then deployed in multiple formats to a massive number of users, supporting local language preferences, currencies and data formats.

"What this means is that the international units of multinationals don't have to force everyone to do business in English," says Collins. "If a business only provides information in English, it's not really a global company."

ReportNet is built atop a Web services architecture, as opposed to other reporting packages that are either client/server-based or only employ a Web interface. With such ease of access, ReportNet is designed to be operated by every kind of user, from simple report consumers to professional authors and developers. This tool enables IT to broadly extend the power to create, distribute and modify reports across a company. It also lets users



interact with complex reports using drag-and-drop functionality.

ReportNet also leverages a Cognos customer's current investment, fully integrating with the Cognos scorecard, dashboard, analysis and event management capabilities. Additionally, it integrates with companies' existing IT infrastructure without creating a need for additional security, data storage or redundant environments. (For more details, see "About Cognos ReportNet," right.)

## DRIVING ENTERPRISEWIDE REPORTING

The following expert advice identifies the primary areas to master in order to ease and maximize the migration from disparate systems to ReportNet.

- **Know Your Baseline** — To get the most out of ReportNet, IT executives first must have a very clear and detailed picture of their current reporting, organizational, decision-making and infrastructure environment, suggests Ventana's Smith. "Implementing ReportNet without first completing those tasks won't instantly solve all your problems and magically prepare your company for the future."

- **Review Your Objectives** — Key to a successful enterprise-reporting initiative is to stay focused on the project objectives, says Cognos VP Rose. "It helps to remember the two major drivers for such an effort: confusion, which gives rise to the need to standardize on one way of arriving at numbers and making core business decisions; and the high cost of managing disparate reporting systems," Rose says.

- **Remember the User** — Don't get swept up in all the promise and forget the role of the user, reminds Alfred Publishing's Manus. "You have to understand the needs and frustrations of your users and involve some of them in your project from the outset," she says. By becoming aware of her end-user frustration with Alfred's reporting environment, Manus was able to inform her CEO of the situation and ultimately land his commitment to implement and support ReportNet.

- **Rally Support** — Manus says IT leaders can't spend enough time communicating with top management and power users (the early adopters of any new IT initiative), securing their support not just for the product decision,

## > ABOUT COGNOS REPORTNET

Cognos ReportNet™ is the first software product to bring together enterprise reporting, ad hoc query and high-volume production reporting. It can create any type of report for any type of user with drag-and-drop simplicity. It delivers pixel-perfect, high-quality reports and provides unprecedented flexibility for novice through advanced users. Cognos ReportNet was built from the ground up on a completely Web-based platform for scalability and performance in the world's biggest companies.

but for the overall strategy. "By communicating with users up front before and during implementation, you get a better idea of how they do business, which helps you determine how to best avoid disrupting them," she says.

- **Lay Out the Transition** — When it comes to introducing ReportNet to an organization, Manus strongly recommends starting small—as she is doing at Alfred Publishing—and gradually broadening the rollout on a function- or department-specific basis. Let people know the pace and progress of the rollout so that they can plan for their introduction to it.

- **Set a Firm Timeline** — If slow transitions aren't your company's style, then Rose suggests another option: "Put a stake in the ground decrying that as of that day, all future reporting tool needs and new applications will be addressed with ReportNet," he says. The change might be abrupt, but "The end game is to use ReportNet to make information available to the masses—all employees and suppliers."

- **Prepare for Convergence** — A much discussed and important issue is the anticipated convergence of reporting and business intelligence. Currently, the use of BI products within companies is around 15 percent, says Rose, but that small number may be because of the fragmented reporting environment within companies today. ReportNet will lead the way to quicker convergence, because, until now, there has been no reporting solution that delivers fully integrated capabilities in both production reporting and BI camps.

- **Keep an Eye on Expansion** — A look to

"At the end of the day, the companies that succeed will be the ones that get more and better data to the maximum population faster."

— Mark Smith, CEO and senior VP of research, Ventana Research



## > EIGHT FUNDAMENTALS of the New Era of Enterprise Reporting

### 1. Complete user coverage

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### 2. Comprehensive range of reports

You can deliver all types of reports—ad hoc queries, the authoring and delivery of managed reports to many users, focused business reports and batch-type production reporting. These reports draw on your full range of data assets and heterogeneous sources to deliver consistent information across the board.

### 3. Web-based report authoring

You can get rid of rigid and time-consuming report authoring processes found in banded report authoring systems with an adaptive report authoring environment.

### 4. Build reports once and deploy globally

Run a single report in multiple languages and supported from a single metadata model. Deliver personalized reports worldwide using report bursting, which performs a single execution of a report as required, and distributes the sections to the appropriate recipients based on report content.

### 5. Ease-of-use for greater user adoption

Users can create and share ad hoc reports over the Web with minimal training or IT involvement.

### 6. Ease of integration, customization and automation

You can fully leverage your existing application servers, portals, browsers, enterprise applications and data strategies. API for complete customization and integration.

### 7. High-performance, scalable reporting

Scalability to support hundreds of thousands of users accessible enterprise-wide and 24-7.

### 8. Adapts to your security model

Fully leverage your existing security infrastructure (such as LDAP, NTLM, Active Directory, Netegrity, SAP, Cognos namespace). Simultaneously support multiple security authentication providers.

the future should also include trying to determine the needs of tomorrow based on the environment today—a tall but critical task. “One of the added values going forward,” says Ventana’s Smith, “is that companies can create new applications based on [ReportNet] that can translate into new and expanded business benefits that go beyond even broadly implementing the package.” The stakes are high for IT, as businesses will be spending much more on BI platforms and tools, Smith says, adding that these additional benefits

include using business intelligence to take proactive actions to address upcoming market opportunities and to help substantially reduce inventory. “That’s why you need a strategy that includes ways to maximize the benefits and ROI down the line.”

## THE ENTERPRISE-REPORTING FUTURE IS NOW

ReportNet’s out-of-the-box capabilities make a compelling argument for enterprise reporting. It’s a single, Web-based reporting solution that addresses multiple reporting needs. When it comes to making a business case for ReportNet, the best one is the simplest:

“At the end of the day, the companies that succeed will be the ones that get more and better data to the maximum population faster,” says Ventana’s Smith. “That not only gives decision-makers a single view on how the company is performing, but also enables them to make better and quicker business decisions.” Companies need to address the faster pace and increasing backlog of requests for business information, he says. “Those that do can respond more quickly to changing business needs to become more efficient and more effective.”

Which is exactly the case Manus made when she explained to her CEO how ReportNet could enable more efficient and effective decision-making. “He was not only enthusiastic about [enterprise reporting],” Manus says, “he also realized that moving toward it represented a huge leap forward for the company.”

That huge leap is what ReportNet is all about, says Cognos CIO Collins. “Users want changes in their business to drive their companies, not technology for its own sake,” he says. “An all-in-one reporting product that everyone can use is as much a business breakthrough as a technology breakthrough.” •

Cognos is the world leader in business intelligence and enterprise planning software. Founded in 1969, Cognos today serves more than 22,000 customers in over 135 countries. Cognos enterprise business intelligence solutions and services are also available from more than 3,000 worldwide partners and resellers.

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It's not only about golf and cocktails anymore. To successfully sell IT, CIOs must align projects with customer needs and then prove they delivered value. Better learn these eight essential sales techniques—your budget may be at stake.

# Birth of a Salesman

BY LAUREN GIBBONS PAUL

**A**SK JAY GARDNER TO LIST THE TOP SKILLS HE USES IN HIS JOB AS CIO of \$1.3 billion BMC Software, and he'll cite his ability to influence others, to build relationships, to gain consensus and to motivate people. Technical skills are notably absent from his list.

That's not surprising, considering Gardner spent more than 20 years honing those skills in a variety of sales positions before being named CIO of the software company two years ago. With no technical training or experience, Gardner spent about five minutes feeling nervous about his background before concluding that his sales and marketing skills mattered much more than technical knowledge.

"I already have 400 people in my organization with great technical skills. The day-to-day skills I find critical to being CIO are the things I used to do every day in my sales jobs—building relationships, asking questions, listening, communicating, persuading," says Gardner.

## Reader ROI

- Why sales skills are so important today
- Tips for making communication a formal part of the CIO's job



## CIO Priorities

Bill Vass, on the other hand, would go head to head with anyone on technical knowledge. Vice president of IT at Sun Microsystems, Vass is a die-hard techie. But even he believes sales savvy is more important to his job than technical know-how. "I'm a big technologist, and I really do believe I can solve any technical problem. But you have to be able to sell your program. It's always about people, not technology," says Vass.

For CIOs at IT vendors, salesmanship tends to run in their blood; many have arrived at IT after stints in the sales department. Now more than ever, sales skills are a critical part of the arsenal for other CIOs—indeed the most important part, some argue. In this economic downturn, being able to sell what you are doing for the business to the business just might shield you from extinction. In the absence of persistent advocacy for how IT is helping meet business goals, it is all too easy for senior management to view the department as just another line item needing to get slashed. And who but the CIO will champion IT to the business?

CIOs recognize the importance of sales skills. In our recent "State of the CIO 2003" survey of 539 CIOs (see the April 1 issue at [www.cio.com/printlinks](http://www.cio.com/printlinks)), 35 percent ranked "the ability to influence/salesmanship" as the most pivotal skill in the current business environment. Nearly 80 percent said the ability to communicate effectively is the most important sales skill.

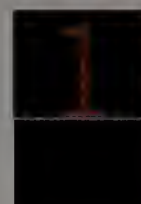
If you don't have a marketing and sales background, you're probably uncomfortable with the whole sales thing. Vass, for example, bristles at the suggestion that he is a salesperson. "I've had people say to me, 'You're a great salesman.' It kind of offends me, actually," says Vass. He's not anxious to be part of any group that includes used-car salesmen.

But that doesn't stop him from using sales skills. These days, talking with external customers is a large part of his job. Vass shares best practices for implementing technology from Sun and other vendors, and he receives the same in kind. "Our customers want to see how we do things. I'm very enthusiastic about what we're doing, and I like to tell people about it," he says. "I also learn a lot from them." He often adopts his customers' best practices for use internally at Sun. Vass conducts presentations alongside Sun Senior Vice President and CIO Bill Howard at meetings with customers, internal users and senior managers.

Those CIOs who are not fluent at selling and influencing business leaders are particularly vulnerable to the budgetary ax. Howard Rubin, executive vice president of Meta Group, and Patricia Jaramillo, president and CEO of Creative IT Marketing, recently surveyed CIO equivalents from 277 large companies. The survey revealed that only 17 percent of respondents have a formal program to sell IT's value to the business. Yet among the 17 percent, the amount of budget cuts experienced was much less than those at companies that didn't have a formal program in place. Companies without CIOs who actively sold the benefits of IT suffered budget reductions of between 5 percent and 25 percent. "The few that had a formal program had much less in the way of cuts," says Rubin. Nearly three-quarters of those whose budgets were slashed the most said a proactive IT marketing and communication program would have lessened the cuts.

While CIOs need some level of technical proficiency, Rubin says, they should lead with marketing skills. "Marketing skills move a CIO closer to the business organization. They make him more visible, more of a point of contact," he says.

If sales experience is missing from your curriculum vitae, you're probably wondering what skills you need. Here are eight classic skills practiced by successful salesmen that you can use to strengthen ties with your IT customers.



### COMMUNICATE

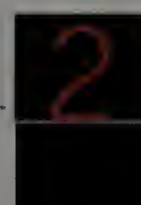
IF YOU THINK SALES TALK IS ALL puffery, think again. The ability to communicate clearly—in your audience's language—

is the number-one selling tool CIOs should use. "If you can't sell your ideas, you don't get very far in this job," says Howard.

"You gotta tell your story," says Sheleen Quish, global CIO and vice president of corporate marketing at \$797 million U.S. Can, a steel and plastic container manufacturer. Quish presents an update to the executive committee monthly. "That's my time to tell where we are on budget and on projects. I highlight what we've done and who's been significant in getting it done. I use past projects where we've been successful to convince them we need to do certain things. I package successes to seed opportunities for continued success."

For example, Quish recently finished the remarkably smooth implementation of a formal development methodology. With that project wrapped up, she set out to communicate that all involved IT staff and users did a great job. "I created a communication that was sent through the company spelling out this message in a friendly way," she says. In addition to highlighting the IT organization's success, the memo subtly helped shift perception about IT and laid the groundwork for future projects.

"You have to be very proactive in your communication," adds Dale Venio, CIO at Network Associates, who gets 30 minutes on CEO George Samenuk's calendar every two months religiously, even if things are quiet. "Sometimes I just say hello and review what we're doing." (For more on proactive communication, see "Formalize Your Communication," Page 98.)



### MANAGE EXPECTATIONS

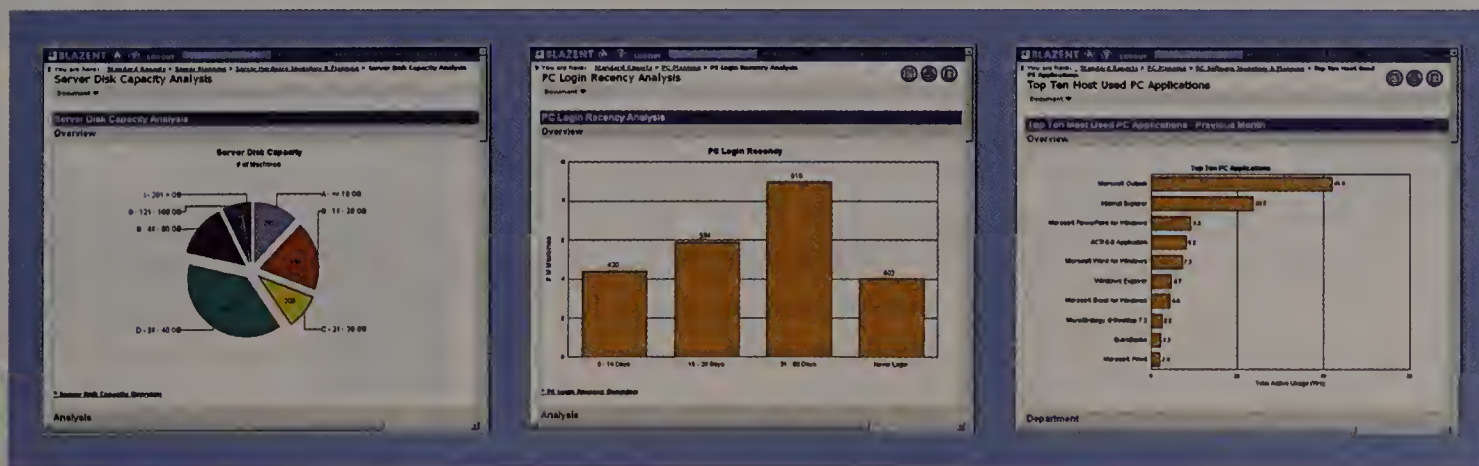
THERE'S NO POINT HAVING BUSINESS users buy in to an IT project or vision you can't execute. Managing expectations, therefore, is crucial.

"You really have to sell what you can do, as opposed to what they think they



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want,” says Quish. “I’m constantly trying to sell and educate and orient people so we can understand the realities and work together.”

Managing expectations really boils down to presenting alternatives so that both sides will end up happy with what they get. For example, in her personal life, Quish wants her daughter home by midnight on the weekends, so she offered her a choice of 10 p.m., 11 p.m. or midnight for her curfew. Her daughter naturally chose midnight, and they’re both satisfied.

In a work example, end users typically want all possible functionality on a project; they want it now, and they don’t want to pay for it. “I have educated the users so they know they can have two out of three of those priorities. They get to choose their priorities based on business reasons. It’s all about trade-offs,” Quish says.



### GIVE SAMPLES

ANY SALESMAN KNOWS OFFERING a well-chosen freebie in advance of the sale can make all the difference in closing the deal. At Sun, Vass used that principle to his advantage, offering executives early access to Java badges in anticipation of a companywide deployment. Vass says he needs the support of executives for both ongoing and future projects. Those nifty badges contain smart card microchips that give users access to company buildings and single sign-on e-mail and application access. Needless to say, they proved to be a hit and helped pave the way for full-scale deployment.

“We give them some of the latest and greatest technology and get goodwill in return. They begin to see what’s possible. You get them excited about what you’re doing,” says Vass.



### SELL THE CHANGE

WISE CIOs SPEND A HUGE amount of time selling the organization on the cultural and process changes that need to occur in order to realize the ben-

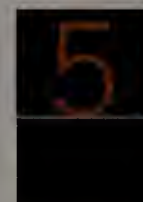
efits of almost any IT project. Take a major initiative such as a CRM rollout. You can’t use the technology to drive the business benefits that you hope to achieve—too many failed projects are testament to that. Instead, you have to use people to drive the change and thus the benefits. You can’t do that unless they are sold on what you’re doing.

It’s a continual juggling act to balance the amount of change a company’s culture can accept with the amount of change necessary, says Vass. “You have to sell the change, bring people along. Even at Sun, people don’t naturally change,” he says.

In recent years, Vass and his staff have been working to convert legions of Sun workers from PCs with hard drives over to thin clients (technology the company sells, not incidentally). Changing to thin clients mean users can access their files anywhere within the company rather than from a fixed location, and it relieves users

of the burden of backing up their work or waiting for their machines to boot up.

Those are all positive things, says Vass, but business users still had a hard time accepting their new machines even though they were made by their own company. “Users never really like to change, even if they will get much more work done after the change is made,” he says. To help the change go down better, Vass sells it by demonstrating ROI and overall advantage to the company.



### MASTER THE ART OF PERSUASION

TECHNOLOGY USE THAT EFFECTS business results has a way of stepping on toes, so you’ll need your full body armor. Selling successfully involves overcoming political hurdles more than anything else. Vass cites the common task of consolidating redundant applications. “I own System A

## Formalize Your Communication

Effective communication is one of the top sales skills. To do it successfully, make communication a formal part of your job. Here’s a tip sheet to get you started.

**ASSIGN RESOURCES.** Responsibility for marketing IT and communicating value has to be someone’s job (or at least part of it). Commit both personnel and financial resources.

**CREATE A CUSTOMER VALUE MAP.** Who are your customers? What do they value? How do they measure IT success?

**ESTABLISH A CATALOG OF PRODUCTS AND SERVICES.** Make it clear what you do for the business and external partners.

**WRITE A MISSION STATEMENT.** Express what you are doing, what you value and how you are aligned with the business.

**PREPARE QUARTERLY BUSINESS REVIEWS.** Evaluate each product and service area in terms of their internal performances.

**CREATE AN INTEGRATED BALANCED SCORECARD.** Use metrics to demonstrate IT’s value internally.

**ESTABLISH A COMMUNICATION CONTINUUM.** From daily customer briefings to internal and external newsletters, town hall meetings, and value-focused quarterly and annual reviews.

SOURCE: Meta Group and Creative IT Marketing



# —RELY-N-GO—

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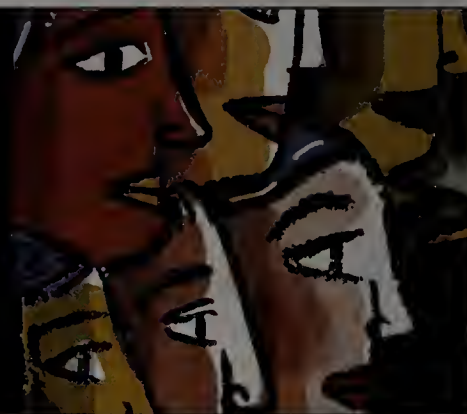


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**COMPANIES** without CIOs who actively sold the benefits of IT suffered budget reductions of between 5 percent and 25 percent.



and you own System B, and they both do the same things. The logical thing would be to consolidate them. But egos were involved in creating both of those systems. It takes a lot of work to overcome that," he says. "There's a lot of sales involved." He overcomes resistance by dispassionately showing that change is necessary for the good of the company.

6

#### MARKET THE SUCCESSES

IT'S HUMAN NATURE THAT people remember the disasters far longer than they do the successes. It's your job to reverse that. "Every time we have had a win, I have known how to market and publish it," says U.S. Can's Quish. "That's one thing that has contributed to the growth of my career."

She cautions, however, that your mar-

keting methods must match the prevailing corporate culture. Prior to joining her current company, Quish was CIO of Blue Cross Blue Shield of Illinois, where she regularly published glossy newsletters to get the word out about successful IT projects and provide updates on the status of current efforts. At U.S. Can, such an expensive and formal approach wouldn't fly. "That would be considered in bad taste. Here it's much more of a grassroots thing," she says. It is still important to recognize both IT and businesspeople who have contributed to the success of a project, but she's more likely to do that at her regular executive briefings or via a webpage.

7

#### DELIVER THE GOODS

SALESMEN OFTEN HAVE THE luxury of making the sale, collecting a commission and walking away. Not so, you, the CIO who remains associated with a project well beyond the initial sale. No CIO can have long-lasting credibility without demonstrating to constituents that he believes in what IT is doing and can make it happen. "You have to be able to stick with your direction and show that you can accomplish it," says Vass. "You have to be more than just hot air. You have to deliver things too." So, if you've spent months preparing the organization for a major CRM initiative, you'd better deliver an actual tool at the end of it. Otherwise, any subsequent ideas will prove to be a hard sell, indeed.

8

#### SELL (LITERALLY)

THIS IS MORE APPLICABLE TO CIOs from technology companies than anyone else, yet even CIOs from nontechnology companies should hit the road for some sales calls. During his 15-year tenure in BMC's sales department, Gardner gained an intimate understanding of the company's field operations and products. He uses that knowledge during the sales calls he now makes as a part of his job as CIO. Sun's Howard goes on 50 to 60 customer briefings every year to demonstrate to the biggest customers how Sun applies its own technology to achieve its business goals.

The payoff for mastering sales skills? A little insulation to buffer the current inhospitable climate. In a year when most companies have halted major new IT initiatives, Veno of Network Associates is planning to roll out a Siebel CRM system to 3,000 users. With a decades-long background in sales and marketing, she is well aware of the pitfalls that await too many of these implementations. She believes her background stands the organization in good stead to avoid these traps. "So many other organizations are having to cut their IT investment dollars right now," says Veno. "We're able to spend on our infrastructure. And it's all focused on what the users need." **CIO**

## A Reading List

Articles and books about sales skills and how to acquire them

**FROM CIO, FIND THESE AT [www.cio.com/printlinks](http://www.cio.com/printlinks):**

"Brand IT" (Jan. 15, 2002)  
"The Art of the Shmooze" (April 15, 2002)

#### BOOKS

*How to Sell Anything to Anybody*, by Joe Girard (Warner Books, 2001)  
*Selling 101: What Every Successful Sales Professional Needs to Know*, by Zig Ziglar (Thomas Nelson, 2003)

Send your comments about selling the value of IT to Senior Editor Megan Santosus at [santosus@cio.com](mailto:santosus@cio.com). Lauren Gibbons Paul is a freelance writer based in Waban, Mass.



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# Reality Bytes

A Cold Look at Hot Trends

## Why More Is Less

Recent evidence shows that multitasking is an enormous waste of your time and your company's money

BY MEGAN SANTOSUS

**BUSINESS CONDITIONS** are so universally dismal that the corporate slogan for most American companies might as well be "We Do More with Less." That places a heavy burden on employees who are often stretched to their limits. Consequently, multitasking—both in the sense of doing more than one task at a time as well as switching among tasks—has taken on an added importance at companies that have experienced either layoffs or hiring freezes or both (usually both). Since these companies are now chronically understaffed, conventional wisdom decrees that those still on the job be as efficient as possible. Hence the need to juggle as many jobs as one can.

But there's a problem with multitasking. Not only does it take a personal toll on employees, it also doesn't work.

In a February *Wall Street Journal* column, writer Sue Shellenbarger cited a growing body of research evidence that indicates multitasking actually erodes, rather than enhances, productivity. As people divide their attention between two even seemingly simple tasks—reading their e-mail, for instance, while talking on the phone—comprehension, concentration and short-term memory suffer. Switching from one job to another doesn't work any



better. Research indicates that that eats up more time than waiting to finish one job before beginning the next—an inefficiency that increases as the tasks at hand become more complicated. Toggling back and forth between a review of the fine print on a vendor's service-level agreement and a discussion about the amortization of next year's IT investments with your CFO over the phone? Not a terrific time-saving strategy after all.

### Attention Is a Finite Resource

The inutility of multitasking as a productivity tool makes perfect sense when understood in terms of attention and available resources. "Current cognitive models suggest that people have a limited amount of attention available at any moment," says Seth Greenberg, a professor of psychology at Union College. "Attention could be thought of as a fuel that can be dispersed. Thus, tasks can be performed simultaneously with efficiency as

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long as the required attention for both tasks does not exceed the limit." In other words, a person can multitask effectively as long as any given task doesn't require too much attention and thereby exhaust his resources.

For example, if one is riding one's bike through a sylvan glade, one can let one's mind work on a math problem. The riding can be done on autopilot, and a great deal of attention can be paid to the math. But when conditions change, and piloting the bike demands more attention—say, in rush hour traffic or on uneven ground—the performance of one or both of the tasks breaks down. One can ride safely—or solve the problem—but not both, because the demands upon the finite

1,500 hours a year. That means the two to three hours a day she spends recharging her imagination in order to multitask cost her company about \$50,000 annually. That's money being spent just getting up to speed to do actual, productive work.

### Multitasking and Me

I felt relieved when I first read about multitasking's insidious tax on productivity. My idea of productive multitasking is listening to music while huffing on a treadmill. I've never been comfortable juggling plural assignments, preferring instead to follow a linear approach. I like to focus on one project, work on it uninterrupted from beginning to end, and then—and only then—

move on to the next thing. Unfortunately, I've rarely been afforded the luxury to work in this fashion either way back when at school or today in my current job. Deadlines overlap, meetings intervene and colleagues have needs that never seem to coincide with the downtime in my schedule. (The one exception in my life that I faithfully pursue in a linear manner is yard work: first the trimmer, then the mower, then the weeding by hand.) The world of work just doesn't fit

**If an overtaxed, multitasking analyst makes \$75 an hour and works 1,500 hours a year, that means the two to three hours a day she spends resetting and recharging her imagination in order to multitask cost her company about \$50,000 annually.**

resource of attention have escalated. And if one insists upon attempting both, the consequence can be a nasty spill.

### If It's Not One Thing, It's Another

Similarly, shuttling among two or three different pieces of work can be accomplished efficiently provided each one is relatively simple and they are adequately differentiated from one another. Where trouble arises, says Greenberg, is with problem-solving types of tasks, the kind that require creativity, integration of thoughts, and the generation of new ideas. Switching among such tasks demands a certain degree of downtime. The fuel cell of imagination can only be drained for so long before it needs to be recharged. Attempting to solve a problem with a dead imagination is a recipe for failure, not to mention a large waste of time.

Darrel Raynor, a managing director with Data Analysis & Results, has been aware of multitasking's damaging effects on productivity for a number of years. Raynor, who works with companies to create project management offices as a way of boosting IT productivity, says a database analyst asked to switch among four projects will likely be 45 percent less productive than if she's allowed to finish one before starting the next.

"Someone can spend two to three hours a day [of downtime] acclimating to different projects just to gain the focus needed to be productive," Raynor says. If Raynor's assessment is accurate, it's easy to put a number to that kind of brain drain. Say our overtaxed, multitasking analyst makes \$75 an hour and works

into neat and tidy compartments for most of us, even when we aren't under the gun to take up the slack caused by understaffing. At least now I know I'm not lacking a multitasking gene. Following a day of task-juggling, my attention span rivals that of a toddler's—and that, I'm happy to learn, is completely normal.

Unfortunately, even in the face of the mounting scientific and anecdotal evidence (not to mention individual blood pressure and stress levels) that multitasking doesn't work, companies cling to it like shipwrecked survivors to flotsam. They believe that asking employees to multitask saves them money and time when chances are good that it will do neither. This unintelligent intransigence is all the more troubling because most of us intuitively recognize the problems multitasking can pose. We cringe at the thought of someone operating a lathe while scanning the crawl on CNN or a teenager talking on a cell phone while driving. True, none of us are going to lose a digit or rear-end a minivan because we're typing, listening to voice mail and reading instant messages simultaneously. But as Greenberg says, when one's attention is divided, something's got to give. Companies that see multitasking as part of the solution to their staffing issues are actually making their problems worse and are not, finally, doing more with less. They are doing less with less. **CIO**

Opinion and Knowledge Management Editor Megan Santosus will give her full attention to your e-mail if you reach her at [santosus@cio.com](mailto:santosus@cio.com).



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A man in a dark suit, white shirt, and striped tie is standing in an office, holding a mobile phone to his ear. He is looking towards the right. The office background includes a desk with papers, a filing cabinet, and a window. The text "NOW THERE'S A PUSH TO TALK THAT WORKS WHERE YOU DO." is overlaid at the top in a bold, dark font.

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# Career Counsel

Expert Advice to Aspiring CIOs and IT Managers

## How to Get to the Top

When you want to reach for the stars—or at least that next level in your career

**Q:** I am a director serving a prestigious, state-of-the-art \$100 million client in the services management business. My services include enterprise architecture, IT strategy, business processes, IT operations, IT support and leadership. I have a feeling that top management does not understand or appreciate the value of my contribution. I have no peers doing what I do to benchmark my performance. How do I approach management for better compensation, recognition and career growth?

**A:** The IT services management business is an aggressive, fast-moving business with many competitors. It is not uncommon in such a sector that the company's leadership loses sight of the most important asset: its people.

Leaderships are so focused on bringing in the next engagement, meeting client commitments and the competition that they forget about the very thing that distinguishes them from the competition. If this is the case, I suggest you redirect and get their attention.

The best time to do this would be during your scheduled performance review. If one is not scheduled soon, ask your



manager for 30 to 45 minutes of uninterrupted time.

Prior to the meeting, gather your facts and put them in writing with the aim of conducting a cogent conversation with your manager. Your goal should be to inform, ask questions and gain agreement that something should be done relative to compensation or career growth. I recommend you include client references in the information you compile for this meeting as this is perceived as the “real” value. You really need to get the following questions answered: How does the company view me? Am I viewed as an A-list player? If not, why not? Are there some invalid perceptions out there that need to be rectified? Or is it just a case of your working very hard and not being noticed? Your overall objective is to ascertain exactly how management perceives and values you.

It is perfectly legitimate to indicate disappointment and ask for explanations on how management rewards employees and

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## Career Counsel

what you should expect going forward.

However, do not back your manager into a corner or make demands; rather, articulate your position, the work accomplished and results achieved. You should not expect decisions to be made in the meeting, but do not hesitate to ask for a follow-up within a week's time. You may find you do have a legitimate weakness that needs to be improved, or you may come to the conclusion that your worth and value will never be recognized at this company.

—Gerry McNamara,  
partner of Heidrick & Struggles

### HOW TO GET A SEAT AT THE TABLE

**Q: I have been offered a position as a general manager with a global services provider in the financial services industry. The position reports to the head of the division directly underneath the president. My peers are in sales or marketing and operations. However, the previous CIO was not strong enough to be**

**seen as a peer with these other executives due to his lack of understanding of the industry. How do I convey to my prospective boss that it is critical to the success of the busi-**

**ness to view technology at the same level as the other functions, especially when that is the key to the success of a technology-based and service-oriented business? Does the title of general manager suffice to emphasize the importance of the role?**

**A:** It is important to get the president's view on the role of the general manager and whether he views it as a true peer position compared to the head of marketing, for example.

If you have not yet accepted the position, request a meeting with the president and take this opportunity to find out his views on the role, his understanding of how the team will operate, and his goals and objectives. You might try to find out his concerns or disappointment with the previous CIO.

I also suggest you have this discussion with the division head—your direct boss. Make sure that person is comfortable with the offered role and is prepared to give you every opportunity to succeed.

If the president and your direct boss provide you with positive feedback, then it is up to you to prove your value and build confidence through your actions. The rapport you have built with your peers is every bit as important as that with your boss and will most likely be a major factor in your ability to have a positive impact.

—Beverly Lieberman,  
president of Halbrecht Lieberman Associates

### HOW TO OVERCOME THE PAST

**Q: I have been running a custom software development company for the past seven years as its CEO. I am considering a change in direction due to recent events. I have strong team-building, change-management, strategic-planning and problem-solving skills. Some weaknesses are holes in networking knowledge—and that I never completed a degree. How will these shortcomings be perceived in pursuing a CIO position?**

**A:** Let's take the 30,000-foot view of your situation. You have been building products, in this case software, by running a commercial software development function for quite a while. This has no doubt afforded you the opportunity to sharpen your proficiency and hone your skills in software development processes and project management as well as in technical staff recruitment, development and leadership—good stuff indeed.

That said, your background as a prospective CIO candidate lacks “buy side” industry and business knowledge, experience in relationships with operating business management, and the crucial aspect of leveraging technology for the advantage of the enterprise in alignment with strategic, budgetary and political considerations. I will also assume that you have never had ownership of a long-range enterprise information technology strategy, architecture and the corresponding infrastructure.

At a more pragmatic 10,000-foot level, you are at a disadvantage when contending for career opportunities with established CIOs who have been there before—especially in this very soft and highly competitive buyer's job market.

However, use what you have to get what you want.

- Look for a vice president or director-level position in applications development and solutions deployment in an attractive and growing company environment to earn your corporate stripes and scars.

- Get involved in technology deployment and operations.

- Then leverage your new experience into a CIO role by means of either an internal promotion or another change of employers. If shifting companies yet again is not something that you would look forward to, make your next change into an operating unit of a large, multibusiness organization that will afford more inside possibilities to you in the future, perhaps as a divisional CIO.

As for your lack of a degree, you will simply have to make the best of it. Some companies will care, while many won't. I would counsel that “it's never too late.”

—Mark Polansky, managing director and member  
of the advanced technology practice  
at Korn/Ferry International **CIO**

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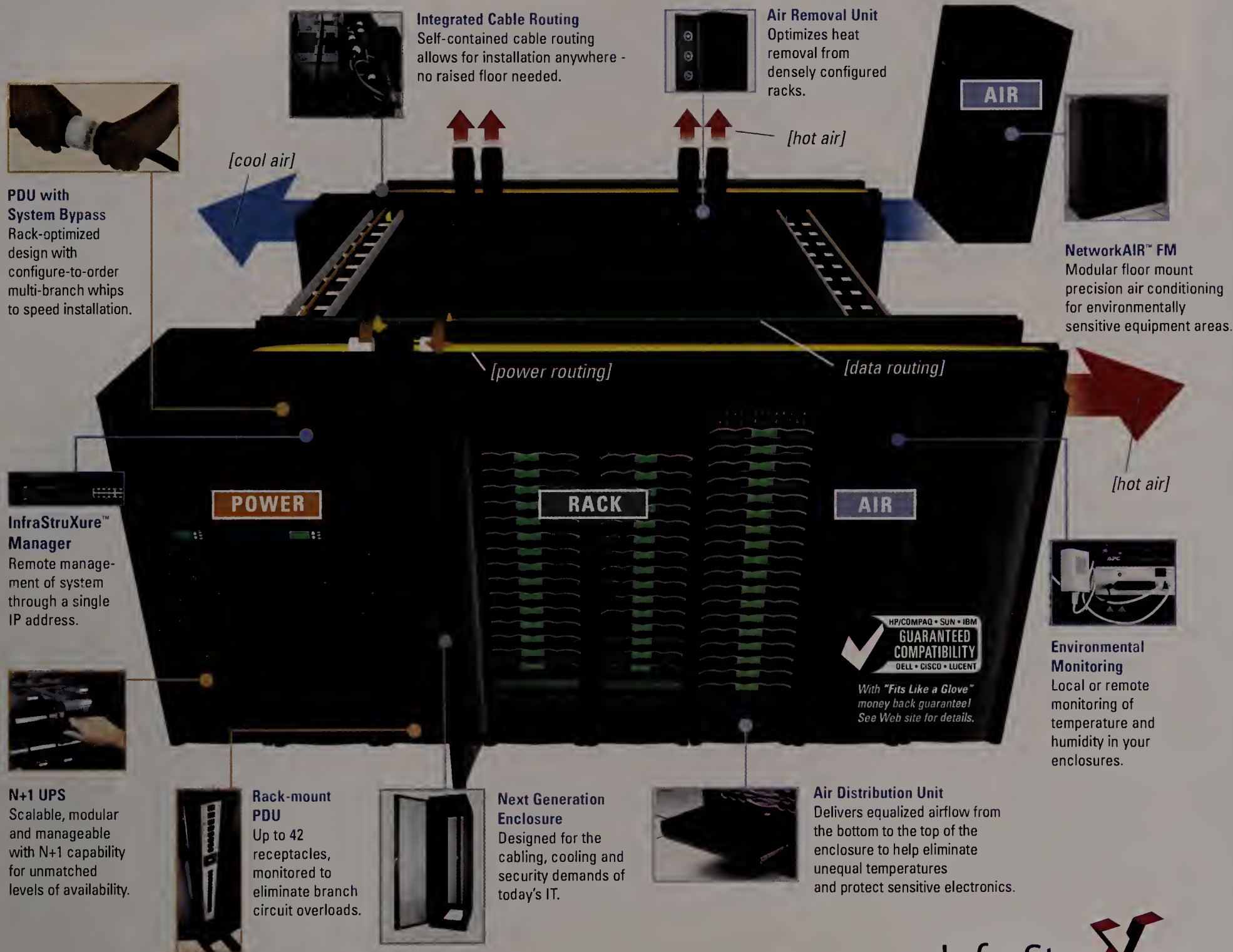
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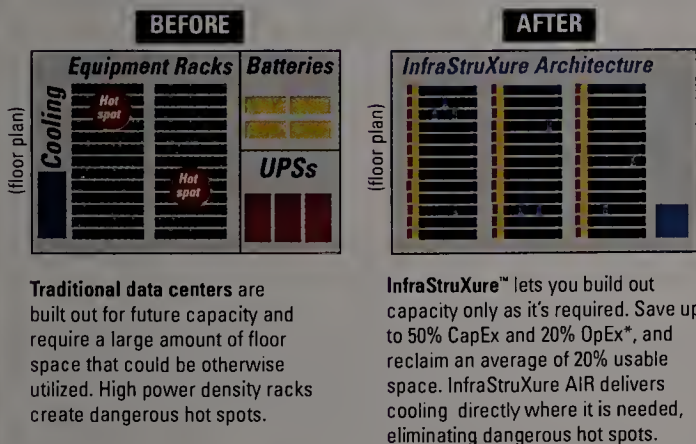
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# Emerging technology

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*Edited by Christopher Lindquist. Read his column "Tech Tact: New Tools for New Jobs" every Monday at [www.cio.com](http://www.cio.com). Send suggestions for future columns and features to [clindquist@cio.com](mailto:clindquist@cio.com).*



## E-Mail on the Cheap

*Low-cost e-mail systems look attractive, but companies shouldn't rush to overhaul their e-mail infrastructures* **BY DYLAN TWENEY**

**SOUTHWEST AIRLINES WANTED** to give e-mail accounts to each of its pilots, flight attendants and ground-crew workers—critical employees who needed to be in the corporate loop but didn't even have computers. The problem: It would have been prohibitively expensive to give

all 30,000 of them accounts on the corporate mail system, Novell GroupWise. It wasn't just the license fees. Shannon Kessner, manager of Intel core services at Southwest, says that the company would have needed to buy—and manage—at least 30 new servers.

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Instead, Southwest chose a more lightweight e-mail system, Novell's NetMail. In early 2002, the company provided e-mail accounts to all 30,000 "deskless" employees using a fault-tolerant array of just three servers. Those employees check their mail using Web browsers, usually from home or from PCs installed in airport terminals. Meanwhile, the 8,000 corporate employees with desks still use GroupWise, which includes the collaborative features that they need. Southwest saves money on software

for Domino, according to The Radicati Group, a consulting and market research company. Add in the platforms and network infrastructure required to run these systems, and the fully loaded, monthly per-user cost soars to \$36.56 for Exchange and \$33.88 for Domino.

Fortunately, fully functioning corporate e-mail systems can be had for far less. According to Radicati, Oracle Collaboration Suite averages \$5.40 per user per month (\$16.25 including the infrastructure

## Together, IBM and Microsoft own nearly 90 percent of the Global 2000 e-mail market, and that dominance will continue through 2007, according to Meta Group.

licensing: Fees for NetMail are typically \$12 to \$15 per user, says Novell, compared with about \$70 per user for GroupWise. And the airline also saves on administration costs because the new system is simple, stable and requires little maintenance. "We've had very few problems with it at all," says Kessner.

Like Southwest, many companies are discovering that corporate e-mail systems don't have to be expensive to be effective. In many cases, simple, stripped-down mail servers fit the bill quite nicely. But that doesn't mean you should rip out your Exchange or Domino servers tomorrow.

### Expensive E-Mail

Microsoft Exchange and IBM Domino/Notes dominate the corporate e-mail world. Together, the packages own nearly 90 percent of the Global 2000 e-mail market, and that dominance will continue through 2007, according to Meta Group. However, these products are expensive. Mix in costs for maintenance, administration, upgrades, training and downtime, and the average cost of providing e-mail during a three-year period tops \$18.45 per user per month for Exchange and \$12.55

costs) and Sun One Messaging Server costs \$8.04 (\$17.80 including infrastructure).

If you're willing to forego the more advanced features offered by those high-end products, the cost drops to the floor. Sendmail recently announced a partnership with Hewlett-Packard and Intel to provide corporate e-mail (called Workforce Mail) for a total cost of \$1 to \$2 per user per month, while IBM claims that its new, low-cost Lotus Workplace Messaging can do the same for less than \$1.

### Switching Costs

So why would anyone pay high prices when they could deliver e-mail for one-sixth to one-tenth the cost of Exchange?

One reason is that corporate knowledge workers—those whose job it is to discover, create and manage information—actually do use the more complicated collaborative features (document sharing, scheduling and the like) built into Notes and Exchange. In some cases, the low-cost systems lack basic features, such as spellcheckers and mail-filtering rules. And you can't switch from a full-featured e-mail system to a less capable one without angering at least some end users. "Once you've convinced people to

## Economical E-Mail Servers

**Anticipated benefit** Provide basic e-mail services at lower cost than full-fledged e-mail systems.

**Hurdles** Lack of collaboration features. Switching costs. Reluctance to use smaller vendors.

**Primary markets** Large enterprises with "deskless" workers. Small and midsize businesses.

**Estimated cost** 50 cents to \$2 per user per month.

### Vendors

#### Gordano

[www.gordano.com](http://www.gordano.com): GMS Mail for Unix and Windows platforms.

#### IBM/Lotus Software

[www.lotus.com](http://www.lotus.com): Workplace messaging and Notes e-mail.

#### Ipswitch

[www.ipswitch.com](http://www.ipswitch.com): IMail Server for Windows 2000 and Windows NT.

#### Microsoft

[www.microsoft.com](http://www.microsoft.com): Exchange messaging and collaboration.

#### Mirapoint

[www.mirapoint.com](http://www.mirapoint.com): Message Server appliances.

#### Novell

[www.novell.com](http://www.novell.com): NetMail e-mail and calendaring system.

#### Oracle

[www.oracle.com](http://www.oracle.com): Collaboration Suite messaging and collaboration system.

#### Sendmail

[www.sendmail.com](http://www.sendmail.com): Workforce Mail server.

#### Stalker Software

[www.stalker.com](http://www.stalker.com): CommuniGate Pro mail server.

#### Sun

[www.sun.com](http://www.sun.com): Sun One Messaging Server corporate messaging platform.





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use a fork, you don't want to take that away and convince them to use a spoon," says Mark Levitt, research vice president for collaborative computing at IDC (a sister company to CIO's publisher).

What's more, everything you've already spent on e-mail to date is a sunk cost. You're not getting that money back, even if you switch. "Although commodity e-mail systems may look cheap on paper, the ongoing maintenance of your existing e-mail system may not be as expensive as switching," says Matt Cain, senior vice president at Meta Group. Finally, switching e-mail platforms requires your IT staff to install and support a new system (a major retraining headache) and to migrate user accounts and data.

The bottom line? "I don't think there is such a thing as cheap e-mail, particularly if it's got the capabilities everybody wants,"

Eudora or in some cases even to Microsoft Outlook, all of which may simplify client maintenance headaches.

Lotus Workplace Messaging, for example, uses industry-standard J2EE code running on IBM's WebSphere, stores its data in a DB2 database and delivers mail via webpages. If you're already running those systems for, say, your Web applications, you can get significant economies of scale by running e-mail on the same platform. (By contrast, Domino uses a proprietary data store, has its own programming language, and generally requires the bulky and idiosyncratic Notes client.)

### Keep It Simple

When your mail system is based on a standard platform, maintenance is simpler because your IT staff can apply skills it has already learned in managing other IT

"You need something that has an easy-to-use interface and performs well."

Others agree. For many workers who don't use PCs every day—factory workers, retail employees and the like—simpler is better. "Low maintenance and low total cost of ownership make a lot of sense for those workers who don't need a lot of high-end features," says Dana Gardner, a senior analyst for The Yankee Group.

### A Mature Market

Such employees—about one-third of the corporate workforce, according to estimates by Radicati and Ferris Research—are a tempting market for e-mail vendors. With the rest of the corporate world already sewn up by IBM and Microsoft, vendors are looking for growth where they can get it. Therefore, the recent push toward low-cost mail solutions may be driven more by vendors' marketing desires than it is by customer needs.

There's also an underlying technical reason for vendors to push standards-based e-mail. Putting e-mail servers on a common foundation gets vendors in line with the overall industry trend toward open Internet standards. "The business design we have, which is based on industry standards, leverages the industry's investment, which is why we can get the licensing costs down," says Ambuj Goyal, general manager of IBM's Lotus Software. In other words: With millions of developers working on Java applications, IBM doesn't have to devote its own resources to building a robust platform from scratch. IBM's goal is to have all of its messaging and collaboration products migrate to an open platform over time, says Goyal, while preserving support for current Notes clients.

Naturally, Microsoft isn't taking this threat lying down. The new Exchange Server 2003 includes a per-device licensing option that makes it more economical for companies that want to provide kiosk-based Web access to large numbers of deskless workers. Instead of paying for each user, companies can pay a license fee

## Beyond cost, some companies are finding that fewer features can actually be beneficial to the end users.

says Robert Moon, CIO and vice president of information services for ViewSonic, whose e-mail system is based on Oracle Collaboration Suite.

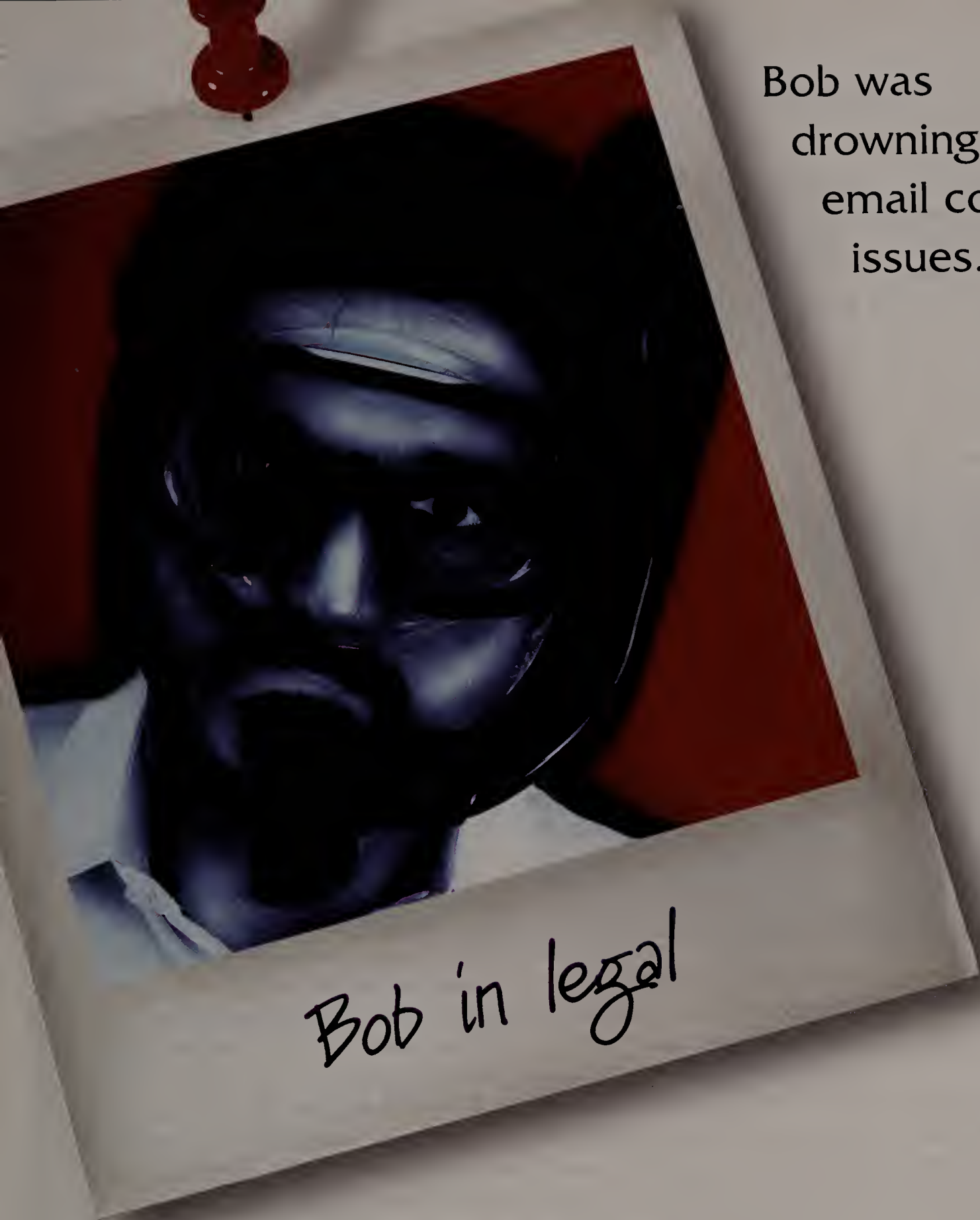
### Lower Cost of Ownership

Commodity e-mail systems do, however, offer some powerful advantages that lend themselves to situations where basic e-mail is all you need—such as providing e-mail to deskless workers or to users who are not computer savvy.

First and foremost is the lower cost of ownership. Commodity mail systems are based on robust, standard, open Internet mail protocols, such as SMTP, POP3 and IMAP. They run on standard hardware and may use the same back-end data stores as the rest of your enterprise. They can deliver e-mail to end users via Web interfaces (much like Hotmail or Yahoo mail), to standard POP clients such as

resources. That's one reason Jim Bobo, systems administrator and chief programmer at Courtesy Insurance Agency, switched his company's 100 users from Exchange to Stalker Software's CommuniGate Pro. "You don't have to have a degree in Microsoftese to use the thing," says Bobo.

Beyond cost, some companies are finding that fewer features can actually be beneficial to the end users. For instance, ManuLife Financial, a Canadian financial services company with extensive business in Asia, used Lotus Workplace Messaging to deliver Web-based e-mail to 3,600 independent insurance agents in Japan. Because most of those agents are not computer savvy, the company wanted an easy-to-use solution. "A high degree of functionality would be a bad thing because you've got novices who have never used a computer before," says Rob Salerno, a partner at MetaLogic Consulting, which installed the Lotus system.



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for each device, with an unlimited number of users. And Microsoft has announced plans to move Exchange toward a SQL-based data store, although that is probably several years from fruition.

## How to Save Money

In addition to deskless workers in large corporations, commodity mail vendors may find some traction among small and mid-size businesses, where the allure of added features may not be enough to overcome high costs. While commodity mail is not going to unseat Exchange and Domino from their thrones, says Yankee Group's Gardner, it may contribute to a gradual erosion of their market share over time.

In the short term, however, most companies are moving cautiously. "I want to pick a platform that's going to be around for a long time," says Len Pagon, president and CEO of technology consultancy Brulant. Salerno agrees: "A lot of companies are playing wait and see—they're waiting for a success story."

"Commodity mail is nothing new. It's been out there for the past decade, and it has yet to take hold in corporate America," says Meta's Cain. Instead of switching mail systems, Cain recommends looking for ways of reducing costs in your existing mail setup: Consolidating servers, centralizing and managing storage more effectively, and adding Web mail access to eliminate client maintenance and training headaches.

Still, if you're adding large numbers of new users to your e-mail system, if you're expanding your mail system to groups of employees that haven't had mail accounts, or if you're a small company with a tight IT budget, you should take a look at low-cost mail alternatives. If nothing else, those systems are providing IBM and Microsoft with some much-needed competition. And they just might deliver what you need at a fraction of the cost. ■

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## UNDER DEVELOPMENT

### Retail tech

# Future Shop

TO FIND THE "STORE OF THE FUTURE," you'll have to travel to Rheinberg, Germany. That's where Metro Group, the world's fifth largest retailer, has created a convenience store to serve as a real-world test bed for a variety of advanced retailing technologies.

The Extra Future Store, as the outlet is formally known, showcases systems intended to benefit both shoppers and retailers. Very little inside the store isn't touched by some type of technology. Many of the store's cases, shipping pallets, shopping carts and individual products carry radio frequency identification (RFID) devices that allow everything from sales tracking to automatic inventory replenishment to congestion prevention at the checkout line. Consumers can also take advantage of an intelligent scale that automatically identifies and weighs fruits and vegetables as well as a self-checkout terminal.

Other featured technologies include electronic advertising displays, employee-carried wirelessly networked PDAs, shopping-cart-mounted touch screens that direct customers to specific products, multimedia information kiosks and instantly updatable electronic shelf labels. The store is part of the Metro Group Future Store Initiative, which includes partners such as IBM, Intel, Philips Semiconductors, SAP, and more than 30 other technology and consumer goods companies.

The store's goal is to test new retailing technologies and to set standards that can be implemented on an international scale, says Albrecht von Truchsess, a Metro Group spokesman. "We want to practice how a variety of technological systems can work together in a very complex way." He notes that new technologies will be added to the store whenever the company deems they are ready for public testing.

Metro doesn't have any immediate plans to open additional Future Stores. "It's a test lab," notes von Truchsess. "You normally don't erect several test labs." But that doesn't mean that technologies tested in the Future Store won't eventually find their way into the retail mainstream. "We will get results from this store, and we will decide which solutions are fit to be brought into other stores," he says.

—John Edwards

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**PUNDIT****Web services**

# A Bargain So Far

*Web services a success? Yes, but in ways we never really considered.*

**A COUPLE YEARS AGO**, everyone was wildly excited over a handful of promising new XML standards. The pundits were aflutter about “applications as services,” where enterprises would lease each other’s server-side apps over the Internet. Soon, companies would plug into each other and do business over the wire, on the fly. You might call Web services the Last Big Thing.

The surprise is that today, in the midst of an IT downturn that has become a way of life, Web services really is changing everything. But rather than creating a web of ad-hoc external connections, enterprises are instead quietly adopting Web services to reduce dependence on proprietary message-oriented middleware (MOM).

Key to this shift is service-oriented architecture (SOA)—that is, making applications inside the enterprise available to other applications by wrapping them in Web services interfaces. MOM from Tibco Software or WebMethods can now connect using Web services protocols much as they would via conventional application adapters, making it conceivable to switch MOM vendors without wreaking infrastructure havoc. Plus, Web services wrappers let enterprise developers create simple app-to-app connections without using commercial middleware at all.

Not that MOM vendors appear seriously threatened. During the past couple years, those companies have been shucking the EAI label in favor of “business integration” to emphasize rules-based process management rather than app connections.

Web services will take about a decade to mature on the business process side. There has been some progress, such as



## You might call Web services the Last Big Thing.

—Eric Knorr

the Business Process Execution Language for Web Services (BPEL4WS). But creating a complete specification for business process integration is incredibly complicated. The idea that the entire industry—including the Microsoft, Java and MOM camps, each with its own agenda—could produce a generic, all-encompassing spec for business integration seems pretty preposterous.

So most customers will keep their commercial integration solutions, with the caveat that SOA can loosen the stranglehold that such solutions have on many large enterprises. Meanwhile, IT managers are tired of hearing about standards wars

and highfalutin’ specs, such as BPEL4WS. What they want instead are basic tools to help make Web services truly interoperable across platforms. This is one reason why low-profile startup Systinet is the unsung hero of Web services: The company’s sole product suite, the Web Applications and Services Platform (WASP), provides Java and C++ runtime environments that ensure a fully interoperable SOA. WASP also comes with a UDDI directory that enables developers to publish Web services in a central, inside-the-firewall repository.

Sonic Software offers another interesting approach to SOA. Rather than modifying conventional MOM technology at the edges to accommodate Web services standards, Sonic has created an integration solution built from the ground up on Web services called the Sonic Business Integration Suite. The central component is the Enterprise Service Bus, which combines messaging, distributed transactions, data transformation and intelligent routing to enable applications to “plug in” and interact in a coordinated way.

All this focus on inside-the-enterprise integration scarcely means that public Web services has failed to appear. Amazon.com, FedEx, Google, Nasdaq and Sabre all offer open Web services interfaces. And a handful of business partners are actually plying Web services to create point-to-point connections—they’re just not attempting the multiparty transactions that B2B interactions typically require because the Web services standards for those don’t exist yet.

Instead, the action is behind the scenes, as enterprises quietly standardize their application infrastructures and take us one step closer to plug-and-play integration. Whether you call that a small thing or a Big Thing, smart deployment of Web services is delivering plenty of value for a relatively minor development investment. **CIO**

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# EXECUTIVE

# Summaries

September 15, 2003

## COVER STORY

### Merrill Lynch's Hybrid Outsourcing Gambit

By Todd Datz | 46

For the past nine months, more than 400 IT people from Merrill Lynch's Global Private Client Group and its vendor partners have been working on a \$1 billion makeover of its wealth management workstation platform. Merrill financial advisors get new, more powerful desktops, greater integration and faster workflows, all geared toward capturing more of the assets of high-net-worth customers. The project is a major and controversial shift for Merrill from building and running its own core systems to a hybrid outsourcing model in which a general contractor, Thomson Financial, shares responsibility. While Merrill manages the integration layer and CRM component, Thomson is responsible for the desktop and the performance of several vendor partners, a who's who including AT&T, Dell, HP, IBM and Microsoft, all with significant financial risk built in to their contracts. The key has been tight alignment of incentives and interdependency between Merrill and Thomson. If the project succeeds—and most observers believe it will—it will likely provide a model for other industries.

**"Outsourcing has been done in an almost hands-off, delegate-and-abdicate mentality. Today the firm is saying to vendors, 'You're in this with us. It's almost as if you're a division of our company.'"**

—DENNIS CERU,  
DIRECTOR OF RETAIL BROKERAGE AND  
INVESTING, TOWERGROUP

## Poor Grades for CIO Managers

By Lauren Gibbons Paul | 60

**A CIO SURVEY OF 400 I.T. PROFESSIONALS** under the level of CIO indicates that they have a deep dissatisfaction with CIOs' leadership abilities. They complain about infrequent feedback, lack of training and development, and CIO indifference to what they are working on. Without money for bonuses or even cost-of-living increases for the employees who remain, many CIOs are pulling back from hands-on staff management. They're holding fewer meetings, asking fewer questions, hiding behind closed doors or on the road, and working from home. But withdrawal is exactly the wrong impulse. Staffers pick up signals by a leader's action—or lack of action—and indifference only rankles them. CIOs who want to do right by their IT employees (the better to retain them when times improve) should make sure information flows both up and down the corporate ladder, solicit staff input and ideas, and make training and leadership development available.

## Staff Leadership Development

By Todd Datz | 70

**COMPANIES AS DIVERSE AS DELL, ING U.S. Financial Services and Royal Caribbean** have recognized that molding future IT executives is critical to their long-term success, and they are enacting programs to make sure the cream rises to the top. Too often the leaders on IT staffs have been promoted based on their technical expertise, with little thought given to their managerial and leadership skills. But smart companies are instilling in high-potential, midlevel IT managers the same core leadership talents that serve the CIO—communication skills, a thorough understanding of the business and an appreciation for company values. They are employing such skill-building methods as rotation of IT staff into business functions, formal education programs, mentor-matching with business execs and voluntary teams that give natural leaders a chance to emerge.

## Business Intelligence Software

By Alice Dragoon | 84

**BUSINESS INTELLIGENCE (BI)** software has been a rare bright spot in a bleak technology marketplace. For a relatively low investment, it yields fast payback across a range of applications. Using BI tools, business users can jump into databases to slice and dice data themselves, using the results to produce hard numbers to back up gut decisions. Companies such as Quaker Chemical and Fiber-Mark have used BI tools to extract value from reams of data sitting around in multiple ERP databases. Besides analyzing collected data, BI can help position companies to negotiate better terms by quantifying the value of relationships with key suppliers and customers. It's also proven adept at spotting business bloopers. Toyota used BI to help it realize it had double-paid its shippers to the tune of \$812,000 in 2000. But as with any data analysis technology, consistent data definitions and cleanliness are keys to effectiveness.

## CIO Sales Skills

By Lauren Gibbons Paul | 95

**BEING ABLE TO SELL** what you are doing for the business to the business may save important programs from the budgetary ax. According to Meta Group research, only 17 percent of large companies have a formal program to sell IT's value to the business—and those that do experienced fewer IT budget cuts than companies that didn't have a formal program in place. CIOs, who through their career path or education are adept at selling, offer tips and techniques. Among them: literally "selling"—CIOs should hit the road for some external sales calls—as well as dispassionately demonstrating ROI to overcome political resistance when trying to advocate cultural and process changes. Marketing past successes will also help, but the method of marketing needs to be suited to the corporate culture, lest it come across as wasteful boasting.



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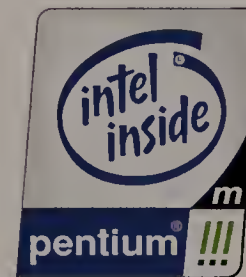
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